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ly 1988

HYDROLOGIC DATA 1985

Volume I: North Coastal Area

Gordon K. Van Vleck
Secretary for Resources
The Resources Agency

George Deukmejian
Governor
State of California

David N. Kennedy
Director
Department of Water Resources

ON THE COVER The northwest coast, rugged in its grandeur, forms a bulwark to the sea.

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May 1988

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BULLETIN 130 HYDROLOGIC DATA
AREAL COVERAGE OF VOLUMES
THIS VOLUME:
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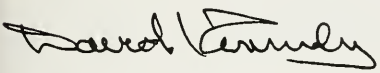
FOREWORD

Department of Water Resources' Bulletin 130 series, which presents hydrologic data for California, was published annually from 1963 to 1975. The series was discontinued with the advent of the storage and retrieval of hydrologic data by electronic data processing methods. However, continued interest in the series prompts resumption of publication.

The first in the resumed series is Bulletin 130-85. It contains hydrologic data for the 1985 water year (October 1, 1984 through September 30, 1985). The Bulletin is published in five volumes, each of which reports on one of the five areas of the State delineated on the facing map. This volume covers North Coastal California.

The data collection program of the Department of Water Resources supplements similar activities by other agencies to obtain the information required for effective water resources planning, design and operation of water facilities, and for control and management of the State's water resources.



David N. Kennedy, Director
Department of Water Resources

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The California Water Commission serves as a policy advisory body to the Director of Water Resources on all California water resources matters. The nine-member citizen commission provides a water resources forum for the people of the State, acts as a liaison between the legislative and executive branches of State Government, and coordinates federal, state, and local water resources efforts.

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Arcata Redwood Company

California State Department of Forestry

California State Department of Parks and Recreation

California State Department of Transportation

City of Weed Fire Department

City of Willets

Fruit Growers Supply Company

National Parks Service

National Weather Service

Pacific Lumber Company

Pacific Power and Light Company

Tule Lake Irrigation District

U. S. Bureau of Indian Affairs

U. S. Bureau of Reclamation

U. S. Forest Service

INTRODUCTION

Bulletin 130-85 presents data on the quantity and quality of California's water resources for the water year October 1, 1984 through September 30, 1985. These data were collected by the Department of Water Resources and other organizations cooperating with the Department. The data are published in five volumes (for areal coverage of volumes see page ii). This volume encompasses North Coastal California. Each volume contains data presented in five appendixes as follows:

Appendix	Subject
A	Precipitation Measurements
B	Surface Water Measurements
C	Surface Water Quality
D	Ground Water Measurements
E	Ground Water Quality

Inquiries regarding the data in this publication should be directed to the offices of the Department of Water Resources listed inside the back cover. The Department's files also contain some data currently not being published, which are also available from these offices.

Additional information about the availability of hydrologic data for California will be found in Department of Water Resources Bulletin 230 series "Index to Sources of Hydrologic Data." This reference series presents an inventory of historic hydrologic data on file with the Department. The most recent issue is Bulletin 230-81. A new edition is in preparation.

Station Location and Identification

The locations of precipitation, surface water measurement and surface water quality data stations are shown on figures included with the respective appendix. Because they are so numerous relative to the figure scale, the locations of individual wells for which depths to ground water and water quality are presented cannot be shown. Instead, figures are presented showing the locations of ground water basins or areas for which well data are listed in this volume.

The principal identifiers for locating hydrologic data stations are (1) station name, (2) station number, (3) latitude and longitude, (4) township, range and section (T,R and S) and (5) county. All are used in this publication, but vary with the type of data and common usage. For example, in ground water the township, range and section serve as the station name and number.

A sixth identifier, an areal one, is employed in this publication. Called the "Areal Designation Code," it is the signature for the Department's Areal Designation System which was developed to relate all water resources data to areal location. The Areal Designation System and Code are described in the following section.

Detailed explanations of the station names and station numbers used for each type of data appear with the appendix in which the data appear.

Latitude is the angular measurement from the equator, north or south, to a point of interest on the earth's surface. Longitude is the angular measurement from the prime meridian (zero point) at Greenwich, England, east or west, to a point of interest on the earth's surface. Latitude and longitude are given in degrees, minutes and seconds. A difference of one second of latitude represents about 100 feet on the ground. In California, a difference of one second of longitude represents about 85 feet on the ground.

Areal Designation Code

The areal designation code (called simply the "areal code") is an alphanumeric which designates a specific hydrologic area in the State.

Areal designation defines hydrologic boundaries throughout California. Under this system, the State is divided into four geographic levels based on topography, hydrology, geology and occasionally, institutional considerations. These are designated, in decreasing size, hydrologic basin (HB), hydrologic unit (HU), hydrologic area (HA) and hydrologic subarea (HSA). The first level, the hydrologic basin, is the land area defined by the highest surrounding ridges such that each separate land area is easily identified as independent of the others. There are 12 hydrologic basins in California and each is identified by a letter (see Figure 1). Each of the hydrologic basins is divided into a hydrologic unit which encompasses a major watershed, two or more small contiguous watersheds having similar characteristics, or a closed drainage area. The third level of subdivision is the hydrologic area and the fourth and smallest breakdown is the hydrologic subarea. The latter usually is a single ground water basin, a definable portion of a larger ground water basin, a tributary area of a stream system, or a definable portion of a large stream tributary.

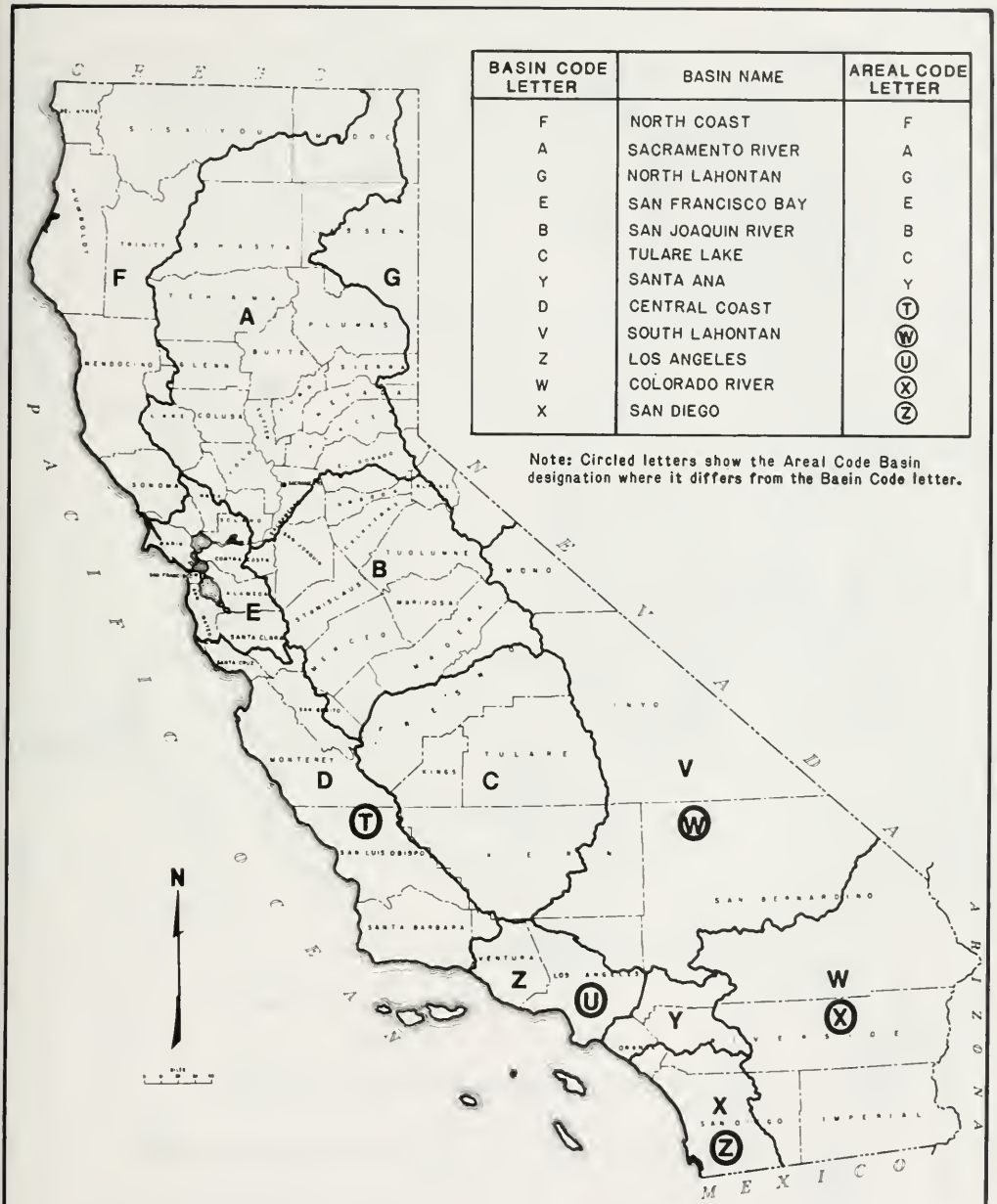
The code used to identify each subdivision consists of five characters; a letter for the hydrologic basin; two numerics for the hydrologic unit; a letter for the hydrologic area; and a single numeric for the hydrologic subarea; i.e., F-03.A1 designates the Smith River Plain Hydrologic Subarea in this volume.

Because several stations may be located in a given hydrologic subarea, the areal code facilitates locating and comparing nearby stations be they precipitation, streamflow, water quality or ground water stations. The areal code is used as an identifier for all stations in this report. The Water Data Information System (WDIS), a computerized data system of the Department of Water Resources, can retrieve all data types by areal code.

Areal codes and boundaries for this volume appear on Figure 2. A map showing all areal codes and boundaries in California as well as a list of all 1,309 subdivisions and their names is available on request.

Agency Code

Reference is made in various tables in this publication to code numbers used to identify agencies collecting data, operating stations, or performing laboratory analysis (Lab). The agencies or laboratories may be identified by matching the tabulated code number with one of the code numbers listed at the beginning of the respective appendix. A complete cross index of agencies and code numbers is available on request.



BASIN CODE LETTER	BASIN NAME	AREAL CODE LETTER
F	NORTH COAST	F
A	SACRAMENTO RIVER	A
G	NORTH LAHONTAN	G
E	SAN FRANCISCO BAY	E
B	SAN JOAQUIN RIVER	B
C	TULARE LAKE	C
Y	SANTA ANA	Y
D	CENTRAL COAST	(T)
V	SOUTH LAHONTAN	(W)
Z	LOS ANGELES	(U)
W	COLORADO RIVER	(X)
X	SAN DIEGO	(Z)

Note: Circled letters show the Areal Code Basin designation where it differs from the Basin Code letter.

Figure 1 HYDROLOGIC BASINS OF CALIFORNIA

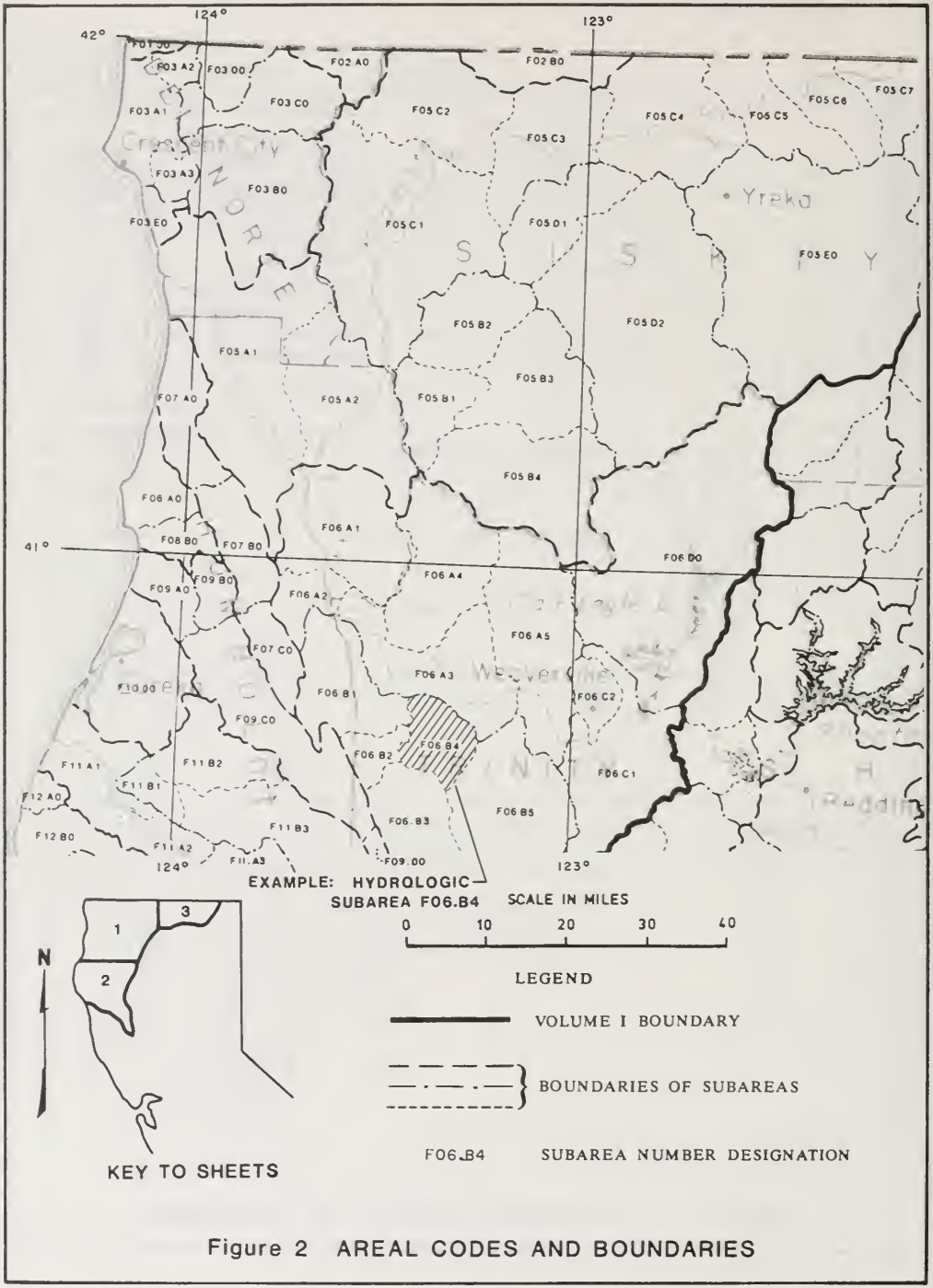


Figure 2 AREAL CODES AND BOUNDARIES

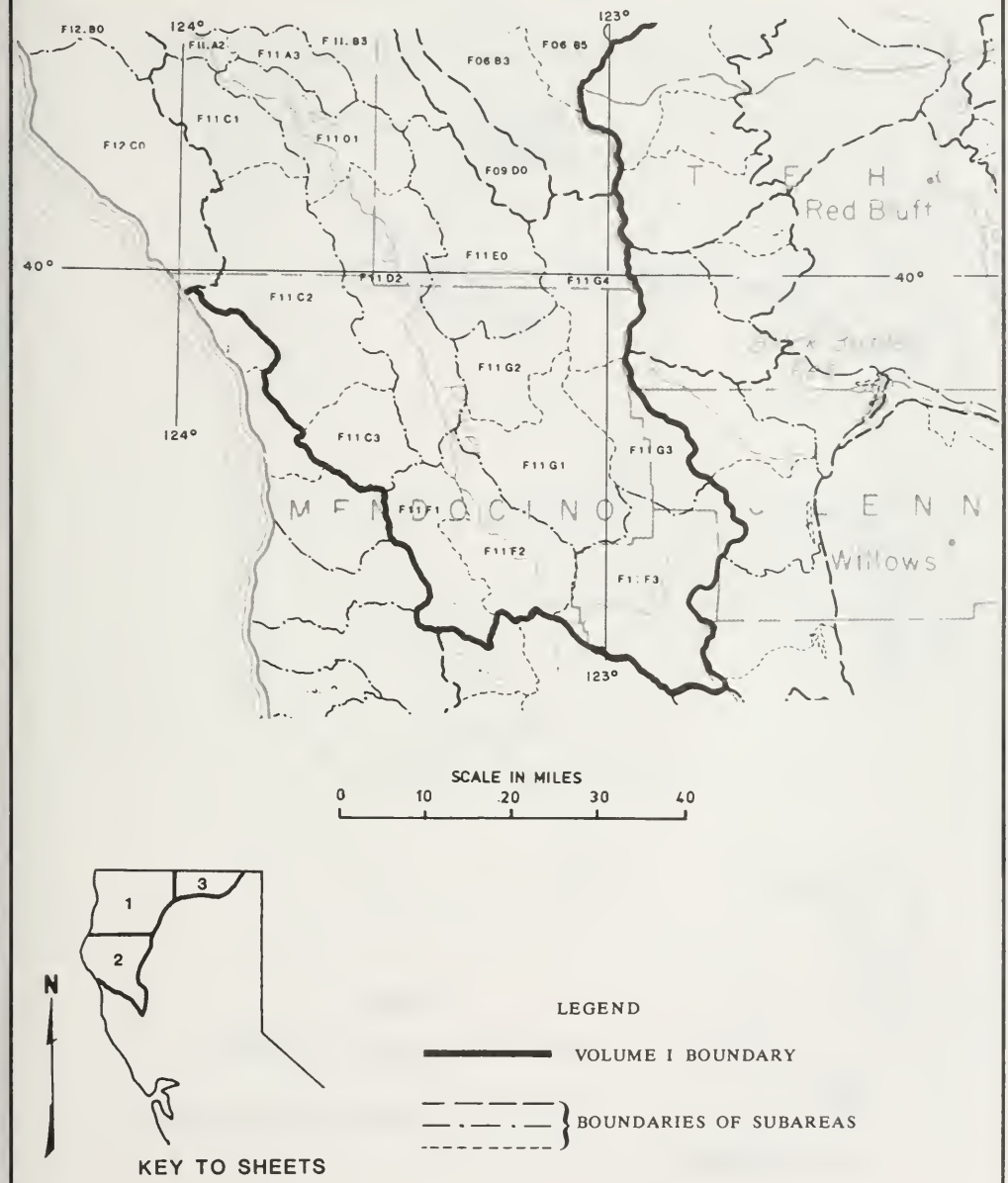
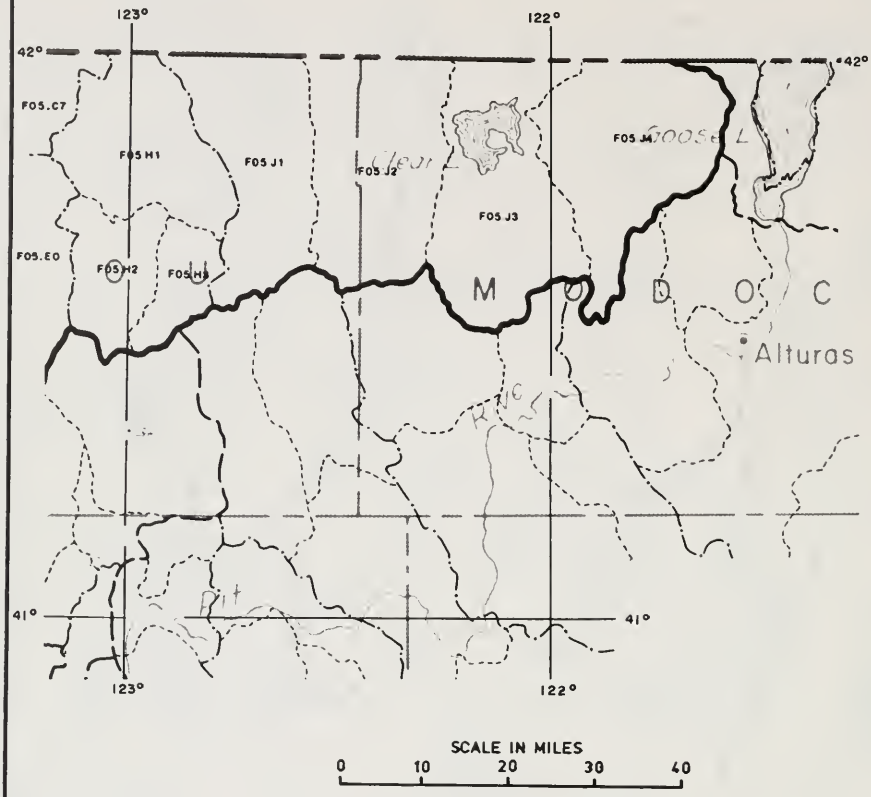


Figure 2 AREAL CODES AND BOUNDARIES



LEGEND

VOLUME I BOUNDARY

BOUNDARIES OF SUBAREAS

Figure 2 AREAL CODES AND BOUNDARIES

APPENDIX A

CLIMATOLOGICAL DATA

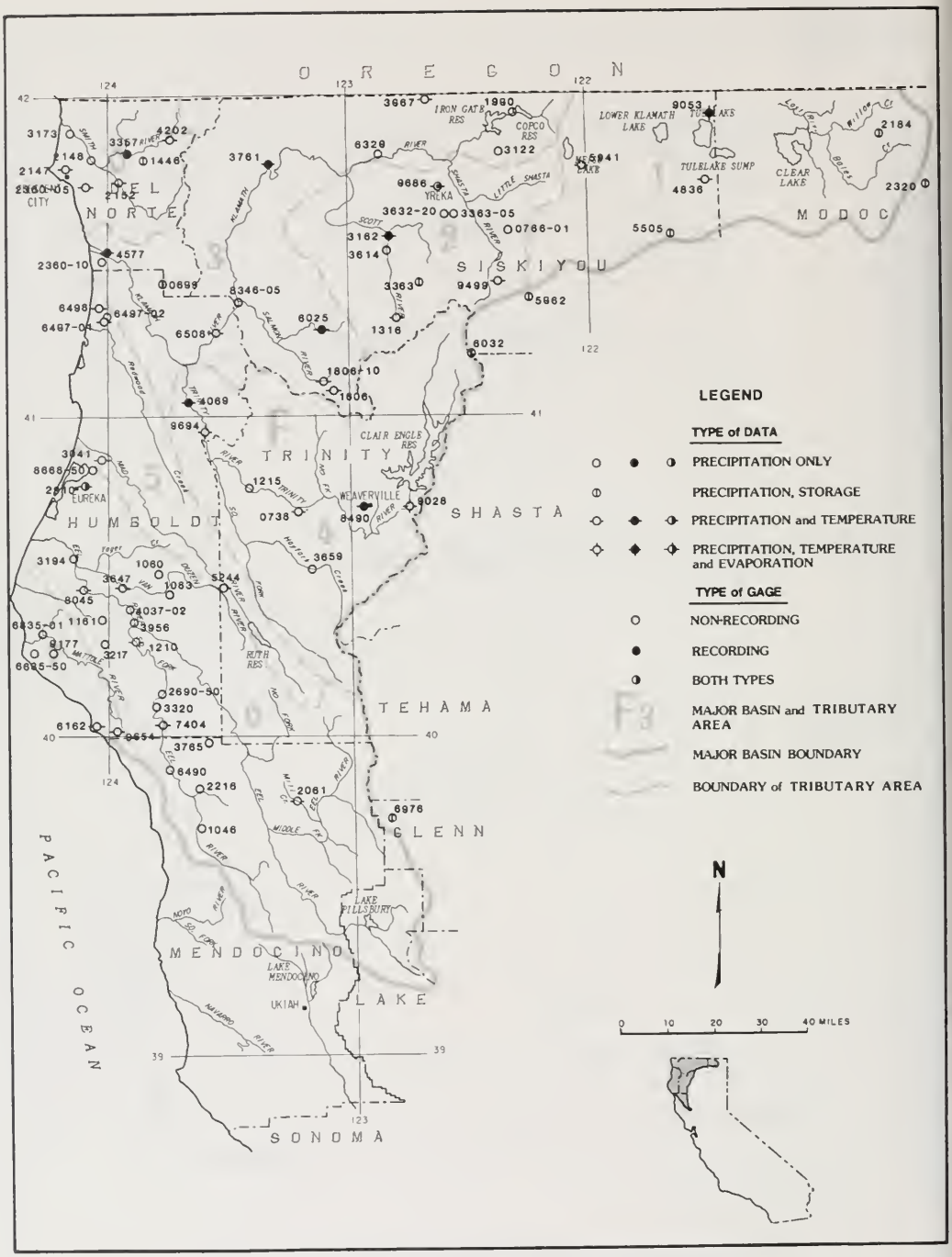


Figure 3 LOCATION OF PRECIPITATION STATIONS

APPENDIX A

CLIMATOLOGICAL DATA

Appendix A presents precipitation data for certain climate stations (Table A- 1) and storage gages (Table A-2) in the North Coastal Area for the water year October 1, 1984 through September 30, 1985. The location of the stations is shown on the facing map.

The first three characters of the nine character station number indicate the major basin ("F" in this volume) and tributary area in which the station is located. The code numbers and names of the tributary areas for this volume are:

Code No.	Tributary	Code No.	Tributary
00	Smith River	40	Trinity River
10	Lost River-Butte Valley	50	Mad River
20	Shasta-Scott Valleys	60	Eel River
30	Klamath River	70	Mattole River

The fourth through the ninth characters denote the sequence of the stations under an alphanumeric system developed by the National Weather Service. (The fourth through seventh characters are the same as the four-digit station numbers used by the National Weather Service.) To simplify presentation the first three characters and the last two (if they are zero) are omitted from Figure 3.

Climatological stations are often named after the nearest post office and the distance and direction to the station. Distance is in miles, and the direction is represented in one of 16 compass points. For example, Bridgeville 4 NNW denotes a station located 4 miles north northwest of the post office at Bridgeville. When two observers (stations) are situated in the same general location, the town name is sometimes followed by the name of the observer. For example; Briceland-Wolf, where Briceland is the place name and Wolf is the observer. The responsibility for selecting the station name generally rests with the agency or individual who establishes the station.

The space for station names is restricted to a combination of 25 letters and/or numerals; therefore, some abbreviations are necessary. Common abbreviations are:

AP	-	Airport
FS	-	Fire Station
HMS	-	Highway Maintenance Station
LO	-	Lookout
PH	-	Power House
RS	-	Ranger Station
SP	-	State Park
STA	-	Station

The Department gives latitude and longitude to the nearest second when the value is known, but the National Weather Service lists stations by degree and minute only. A zero value or a blank space for "seconds" in the latitude and longitude columns means that these values have been obtained from the National Weather Service, and have not been verified in the field by the Department.

Elevations are given in feet from USGS mean sea level datum, and are usually obtained by interpolation between contours of USGS topographic maps.

Precipitation values are shown to the nearest hundredth of an inch (0.01"). (Where digital recording rain gages that only record to the nearest tenth of an inch are used, a zero is shown in the second decimal place.)

The following notations are used to qualify the values:

–	No record or incomplete record
B	Record began
E	Estimated in some degree
N	Record ends
.00T	Trace, an amount too small to measure

TABLE A-1
MONTHLY PRECIPITATION
NORTH COASTAL AREA

REAL OE	STATION NUMBER	LAT	LONG	ELEV	STATION NAME	PRECIPITATION IN INCHES TOTAL	1984 OCT	NOV	DEC	1985 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
6A3	F40073800	40 44	123 14	1,270	Big Bar Ranger Station	29.66	3.19	15.50	2.12	.53	3.26	3.27	.12	.47	.12	.06	.24	.78
5E0	F20073601	41 35	122 19	2,955	Big Springs 4 E	11.06	1.63	2.93	.18	.00	1.26	.10	.00	.76	.56	1.43	.82	1.39
1C3	F60104600	39 41	123 39	1,480	Branscomb 3 NW	63.18	7.58	27.25	4.98	1.38	9.57	9.53	.55	.86	.08	.00	.00	1.40
1B2	F60108000	40 31	123 49	2,050	Bridgeville 4 NNW	57.92	7.32	24.68	5.78	1.07	6.66	7.65	.85	1.29	1.01	.02	.36	1.23
1B3	F60108300	40 28	123 48	650	Bridgeville Fire Station	43.22	4.34	18.08	4.44	.87	4.63	7.49	.32	.73	.29	.00	.35	1.68
1C1	F60118100	40 21	124 06	410	Bull Creek	62.43	5.26	31.95	5.24	1.29	5.50	8.30	.95	2.90	.17	.00	.00	.87
1C1	F60121000	40 18	123 54	200	Burlington State Park	54.31	4.36	28.67	5.09	.88	4.52	8.20	.36	.39	.27	.00	.52	1.05
6A3	F40121500	40 47	123 28	2,150	Burnt Ranch 1 S	---	---	---	---	---	4.62	4.03	.25	.75	.35	.10	.45	1.10
5D2	F20131601	41 24	122 50		Callahan	16.98	1.50	7.40	.42	.31	2.12	.99	.37	.70	.45	1.23	.08	1.41
5B4	F30160519	41 08	123 08	2,960	Cecilville 1 SE	---	---	---	---	---	---	---	---	---	---	---	.70	1.07
5B4	F30160600	41 06	123 03	2,980	Cecilville 5 SE	---	---	---	---	---	---	---	.54	1.03	.37	.39	---	---
5C7	F30199000	41 59	122 20	2,700	Copco Dam NO 1	20.13	2.45	6.22	2.00	.08	2.34	1.03	.30	1.47	.42	.97	.19	2.66
1G2	F60208100	39 47	123 15	1,385	Covelo	31.85	3.22	15.81	2.52	.44	4.34	4.02	.20	.10	.00	.00	.20	1.00
3A1	F00214700	41 46	124 12	40	Crescent City 1 N	53.55	6.60	19.15	4.42	.52	6.49	7.31	1.09	1.58	4.62	.11	.05	1.61
3A1	F00214800	41 48	124 05	120	Crescent City 7 ENE	---	8.03	20.78	4.78	.78	8.11	9.46	1.50	2.35	4.58	.21	.07	---
5J0	F00215200	41 45	123 59	360	Crescent City 11 E	79.16	7.57	32.11	5.88	.84	9.99	12.52	1.64	2.42	3.84	.19	.05	2.11
1C2	F60221800	39 50	123 38	1,270	Cummings	57.75	6.38	25.72	5.00	1.18	7.79	7.90	.52	.78	.29	.00	.05	2.14
3E0	F00236005	41 41	124 06	720	Del Norte Coast Redwood SP	78.08	9.08	25.12	6.71	1.07	10.62	11.63	2.04	2.83	5.94	.21	.32	2.51
8B0	F30236010	41 30	124 03	880	Del Norte Ecology Center	68.65	9.21	23.99	5.65	.62	7.67	9.55	1.44	3.48	4.22	.48	.31	2.03
1C2	F60269050	40 08	123 49	460	Eel River Conservation Camp	52.10	3.86	28.09	4.84	.71	4.29	7.71	.24	.66	.17	.00	.20	1.33
000	F60291000	40 48	124 10	43	Eureka WSO City	36.33	3.67	15.15	4.27	.66	3.69	4.68	.45	1.14	.89	.15	.52	1.06
9A0	F50304100	40 56	124 01	285	Fieldbrook 4 D Ranch	31.87	9.65	23.25	11.20	.07	10.10	12.75	2.30	2.50	5.85	.85	.30	3.05
5C5	F30312200	41 48	122 22	2,960	Foothill School	18.03	1.65	5.61	1.23	.25	1.62	.77	.10	1.21	.22	1.49	1.41	2.47
2C0	F40313000	40 23	123 20	2,340	Forest Glen	---	3.15	24.73	3.32	1.03	4.90	4.66	.38	.33	.04	---	---	---
3A1	F00317300	41 52	124 09	46	Fort Dick	62.63	8.08	22.52	5.11	.71	7.30	8.25	1.45	1.98	4.62	.41	.21	1.99
5D2	F20318200	41 36	122 51	2,720	Fort Jones Ranger Station	20.58	1.91	9.56	.72	.17	2.40	1.89	.11	.75	.33	1.18	.39	1.17
1A1	F60319400	40 36	124 09	60	Fortuna Fire Station	40.68	4.42	18.06	4.46	.73	4.19	5.67	.32	.94	.54	.05	.27	1.03
1C1	F6032170J	40 18	124 03	2,500	Fox Camp	54.37	6.31	32.99	5.93	1.33	5.87	8.70	.65	.50	.77	.02	.06	1.24
5C2	F00335700	41 52	123 58	384	Gasquet Ranger Station	77.26	8.75	31.38	5.45	1.00	8.88	11.61	1.37	3.07	3.52	.26	.03	1.94
5D2	F20361400	41 33	122 54	2,818	Greenview	---	---	---	---	.04	1.82	1.45	.00	2.40	.09	.35	.00	.70
5E0	F20363220	41 35	122 33	2,720	Grenada 5 SSW	13.50	1.36	4.22	.54	.33	1.45	.31	.06	.91	.82	1.00	.06	2.44
1B3	F60364700	40 29	123 47	500	Grizzly Creek Redwood SP	49.05	4.29	21.70	5.20	.95	4.15	9.30	.52	.89	.51	.00	.25	1.29
3B0	F30376100	41 48	123 23	1,090	Happy Camp Ranger Station	45.26	4.37	24.05	2.11	.56	6.17	5.19	.36	.86	.98	.00	.01	.60
1D2	F60373500	39 59	123 36	1,910	Harris 7 SSE	58.48	3.93	25.56	5.54	1.10	5.70	8.29	2.04	.48	2.25	.01	.20	3.38
6B5	F40385900	40 33	123 10	2,340	Hayfork Ranger Station	---	2.40	15.23	2.08	.54	2.22	3.62	.10	---	.11	.18	1.15	1.88
5S0	F30398700	42 00	122 38	2,900	Hilts	---	1.45	7.12	1.19	---	---	---	---	---	---	---	---	---
1C2	F60403702	40 25	123 57	150	Holmes	46.43	3.40	23.10	4.00	.65	4.11	8.64	.33	.55	.27	.00	.29	1.04
2C0	F70407410	40 15	124 07	339	Honeydew Store	---	2.26	35.21	5.25	1.37	---	---	---	---	---	---	---	---
6A1	F40408200	41 03	123 40	350	Hoopa	49.48	5.47	23.77	3.31	.46	5.74	7.38	.24	.92	.46	.04	.18	1.51
6A1	F00420200	41 54	123 46	1250	Idlewild HMS	66.98	7.54	29.11	4.46	.80	7.21	9.70	1.29	2.23	2.18	.20	.00	2.26
5A1	F30457700	41 31	124 02	25	Klamath	69.06	9.01	24.58	5.87	.87	9.45	10.37	.90	2.14	3.61	.30	.34	1.62
5J2	F10483800	41 43	121 30	4,770	Lava Beds National Monument	11.03	1.46	2.22	.82	.07	1.08	1.59	.02	.49	.36	.83	.21	1.38
9C0	F50524400	40 27	123 32	2,775	Mad River Ranger Station	47.19	5.01	24.29	2.74	.99	5.74	5.53	.46	.31	.13	.00	.42	1.57
3C0	F80552450				Mendocino Headlands SP	32.51	5.26	12.32	2.98	1.25	2.85	5.71	.25	.31	.08	.18	.05	1.27
5N1	F10594100	41 47	122 00	4,250	Mount Hebron Ranger Station	10.44	1.51	2.88	.66	.01	.65	.51	.14	.38	.15	.74	.05	2.76
3C0	F30632900	41 50	123 51	1,963	Oak Knoll Ranger Station #2	21.46	2.33	10.41	1.26	.10	2.61	2.55	.18	.57	.39	.14	.15	.77
7A0	F50649701	41 19	124 02	50	Orick 3 NNE	56.57	6.89	21.69	5.90	.80	6.44	7.28	1.01	1.66	2.65	.07	.87	1.31
7A0	F50649702	41 22	124 02	75	Orick Arcata Redwood	53.89	6.67	21.28	5.69	.87	5.33	7.17	1.05	1.76	2.57	.00	.73	.77
7A0	F50649300	41 22	124 01	161	Orick Prairie Creek SP	57.91	7.20	20.95	5.65	1.04	7.87	8.16	1.20	1.57	2.43	.17	.34	1.33
05A2	F30650800	41 18	123 32	403	Orleans	48.65	6.06	21.20	3.53	.89	5.94	6.48	.18	.92	1.56	.25	.28	1.36
12C0	F70683501	40 19	124 16	175	Petrolia	48.27	3.94	23.05	5.51	1.15	4.26	7.11	.31	.85	1.02	.02	.04	1.01
12C0	F70683550	40 15	124 15	1560	Petrolia 5 SSE	77.33	7.48	36.62	6.21	2.03	8.87	10.45	.92	1.62	1.85	.00	.00	1.28
07C0	F50734200	40 54	123 49	350	Redwood Creek Okane	41.90	3.70	16.50	4.30	.80	3.20	8.00	.80	1.40	1.00	.10	.30	1.80
11C2	F60740400	40 02	123 47	500	Richardson Grove State Park	59.22	5.31	29.58	4.54	.82	6.81	8.09	.80	.77	.50	.00	.28	1.72
05B3	F30802500	41 18	123 08	2,169	Sawyers Bar Ranger Station	---	4.93	15.67	1.91	.39	4.79	3.36	.46	.59	.66	.24	---	1.12
11A2	F60804500	40 29	124 06	139	Scotia	38.63	3.22	18.70	3.44	.55	3.61	6.18	.46	.65	.41	.04	.24	1.13
12C0	F70816200	40 02	124 04	55	Shelter Cove Aviation	48.95	7.95	13.49	4.64	1.14	4.69	9.24	1.41	1.75	1.04	.15	.00	3.45
05C1	F30834605	41 23	123 29	727	Somesbar Ukonom RS	48.82	6.64	19.12	3.36	.58	7.94	5.85	.42	.74	1.74	.17	.78	1.48
11C2	F60849000	39 52	123 43	350	Standish Hickey State Park	54.02	4.44	22.66	4.39	1.08	8.62	8.76	.28	.95	.17	.00	.03	2.64
1000	F60866850	40 52	124 04	70	Sunny Brae	42.86	4.63	16.51	5.39	.78	4.75	5.25	.64	1.41	1.25	.05	.63	1.57
06C1	F40902600	40 43	122 48	1,860	Trinity River Hatchery	---	3.15	13.33	2.02	.49	2.62	2.56	.23	.54	.38	.21	---	1.00
05J2	F10905300	41 58	121 28	4,035	Tulelake	10.27	1.90	2.53	.94	.24	.57	.57	.47	.47	.33	.34	.18	1.73
12C0	F70917700	40 15	124 11	255	Upper Mattole	---	5.20	32.81	5.51	1.31	5.98	8.37	.30	.72	.82	.00	---	---
06C2	F40949000	40 44	122 56	2,050	Weaverville Ranger Station	32.54	3.39	16.89	2.36	.56	2.92	3.58	.23	.19	.49	.19	.42	1.32
05E0	F20949900	41 26	122 23	3,593	Weed FD	17.55	.85	9.42	.53	.07	.91	.95	.35	.62	.35	1.60	.09	1.81
13A2	F80958430	39 38	123 02	50	Westport	40.78	5.06	17.40	3.59	1.44	4.63	6.67	.31	.53	.02	.00	.00	1.13
13A2	F80958450	39 39	123 45	80	Westport 2 NE	44.65	5.39	18.70	3.87	1.46	5.68	6.87	.38	.70	.02	.03	.00	1.55
12C0	F70965400	40 01	123 56	1,050	Whitethorn	67.18	9.24	27.73	5.96	1.06	9.49	10.70	.68	1.29	.40	.04	.05	1.54
11F1	F60968400	39 25	123 21	1,350	Willits 1 NE	38.13	4.73	17.22	1.63	1.29	4.90	6.46	.13	.22	.00	.00	.00	1.55
06A2	F40969400	40 57	123 38	461	Willow Creek 1 NW	47.05	5.46	20.35	3.77	.68	5.98	8.71	.23	.43	.35	.04	.24	.81
05E0	F20986600	41 43	122 38	2,631	Yreka	18.81	2.10	8.20	.90	.16	1.99	1.57	.07	.46	.33	1.07	.26	1.70

TABLE A-2
STORAGE GAGE PRECIPITATION DATA

Storage gages are used to record seasonal precipitation in remote regions. They are read annually and are located on tanks which store an entire year's precipitation. Although logistics preclude conducting the measurement exactly at the end of the water year, the gages reasonably depict the total precipitation for the water year since precipitation during the summer months is negligible. In preparation for a new water year, the tanks are emptied, cleaned, and supplied with antifreeze and oil to prevent freezing and loss due to evaporation. Table A-2 lists the values from the storage gages.

The counties in which storage gages are located are identified with the codes listed below:

County	Code
Del Norte	DNT
Glenn	GLE
Modoc	MOD
Siskiyou	SIS
Trinity	TRI

TABLE A-2
STORAGE GAGE PRECIPITATION DATA
NORTH COASTAL AREA

Volume I Station Name	Station Number	Areal Code	County	Lat.	Long.	Elev.	Measurement Period	Precipitation (inches)
North Coastal Hydrologic Basin								
Smith River								
Camp Six L.O.	F00 144600	F03B0	DNT	41-49-48	123-52-24	3700	10/29/84 to 10/28/85	96.16
Lost River - Butte Valley								
Crowder Flat	F10 218400	F05F4	MOD	41-53-00	120-44-00	5175	07/26/84 to 06/20/85	15.75
Long Bell Station	F10 508100	A2303	MOO	41-28-00	121-25-00	4375	07/17/84 to 06/25/85	18.65
Medicine Lake	F10 550500	A23C3	SIS	41-35-00	121-37-00	5660	07/17/84 to 06/25/85	32.90
Shasta - Scott Valleys								
Gazelle Mtn. L.O.	F20 336300	F05D2	SIS	41-24-30	122-40-30	5200	07/16/84 to 06/24/85	14.00
Klamath River								
Blue Creek Mtn. L.O.	F30 089900	F03C0	DNT	41-23-42	123-45-54	4870	11/16/84 to 10/08/85	71.05
Trinity River								
Mumbo Basin	F40 603200	F0600	TRI	41-12-00	122-32-00	5700	07/18/84 to 06/26/85	41.80
Eel River								
Plaskett	F60 697600	F11G3	GLE	39-44-12	122-51-24	6580	07/10/84 to 06/13/85	58.28

APPENDIX B

SURFACE WATER MEASUREMENT

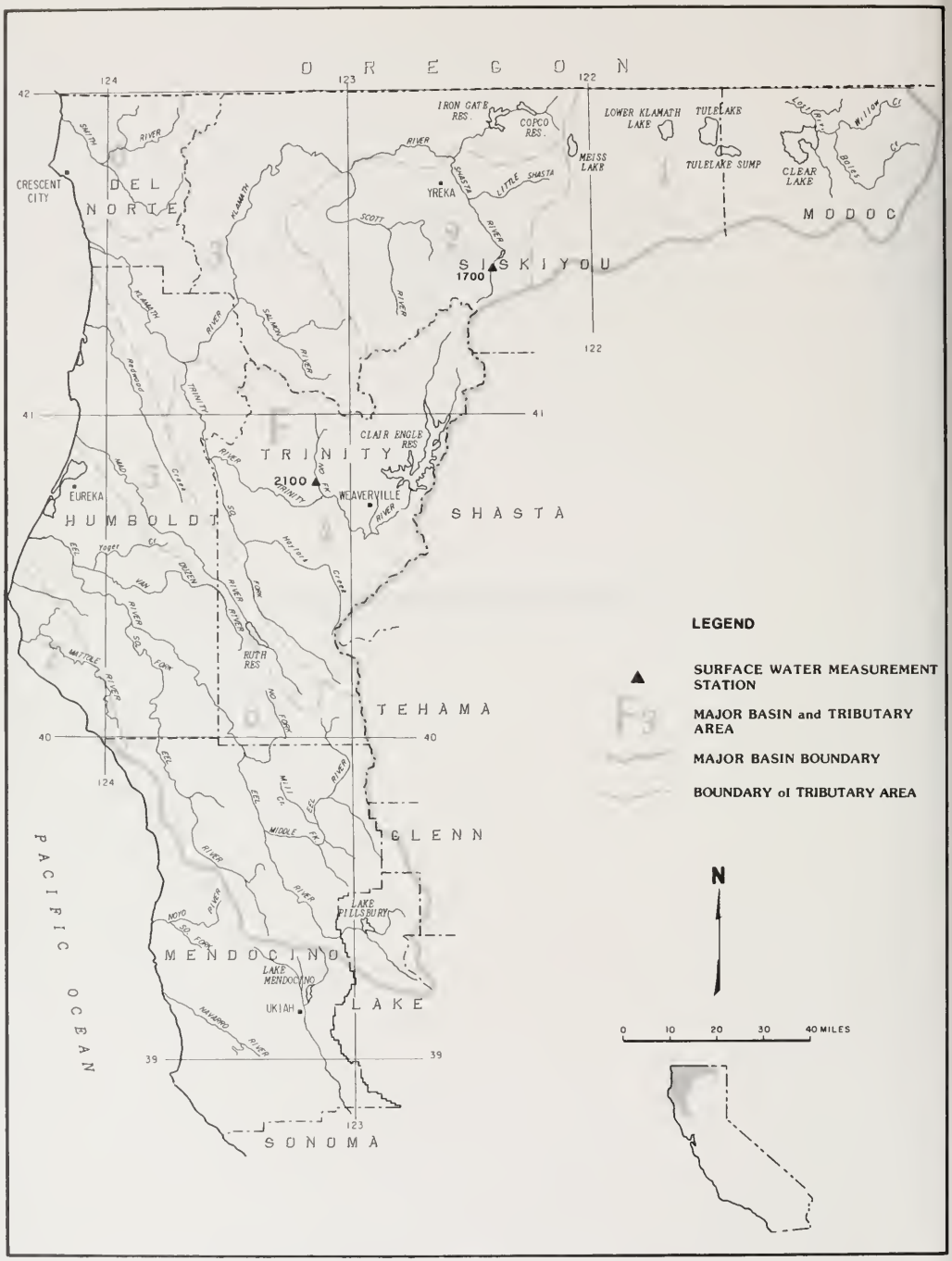


Figure 4 LOCATION OF SURFACE WATER MEASUREMENT STATIONS

APPENDIX B
SURFACE WATER MEASUREMENT

Appendix B presents stream flow measurement data in the North Coastal Area for the water year October 1, 1984 to September 30, 1985. The locations of the stations are shown on the facing map.

The first two characters of the station number indicate the major basin ("F" in this volume) and tributary area in which the station is located. The code numbers and names of the tributary areas for this volume are:

Code No.	Tributary	Code No.	Tributary
0	Smith River	4	Trinity River
1	Lost River-Butte Valley	5	Mad River
2	Shasta-Scott Valleys	6	Eel River
3	Klamath River	7	Mattole River

Surface water stations are named after the stream and a nearby landmark or post office. An example is the station "Trinity River, North Fork, near Helena."

The tables give the daily mean flow at designated stations. In addition, the maximum and minimum discharge and gage height for the water year and the maximum discharge and gage height of record is summarized. The datum and other pertinent data concerning each station are also shown.

The discharge estimated for periods of no record are shown with the letter "E." Also qualified by the letter "E" are discharges obtained from extended ratings which exceed 140 percent of the highest measured flow-rate on which the rating curve was based.

The discharge figures have been rounded as follows:

Daily flows - second-feet

0.0	-	9.9	nearest Tenth
10	-	999	nearest Unit
1,000	-	9,999	nearest Ten
10,000	-	99,999	nearest Hundred
100,000	-	999,999	nearest Thousand

Monthly means - second-feet

0.0	-	99.9	nearest Tenth
100	-	9,999	nearest Unit
10,000	-	99,999	nearest Ten
100,000	-	999,999	nearest Hundred

Monthly and yearly totals - acre-feet

0.0	-	9,999	nearest Unit
10,000	-	99,999	nearest Ten
100,000	-	999,999	nearest Hundred
1,000,000	-	9,999,999	nearest Thousand

TABLE B

DAILY MEAN DISCHARGE
IN CUBIC FEET PER SECOND

STATION NUMBER: F21700 SHASTA RIVER NEAR EDGEWOOD

LOCATION: LAT 41-28-21, LONG 122-26-21, T42N, R05W, SEC. 20M, MD B&M SISKIYOU COUNTY

DRAINAGE AREA: Not Available HYDROLOGIC AREA: F-05.E0

WATER YEAR OCTOBER 1984 through SEPTEMBER 1985

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	DAY
1	23	27	114	56	51	65	54	56	42	11	24	10	1
2	20	160	104	54	53	66	59	63	59	12	16	18	2
3	19	124	108	56	53	61	59	66	41	10	14	19	3
4	21	69	101	56	49	63	68	54	35	9.7	13	17	4
5	19	55	96	56	50	57	78*	47	33	9.6	13	16	5
6	19	66	88	56	51	54	122	43	32	10	13	16	6
7	19	59	82	64	55	55	160	51*	33	10	12	19	7
8	19	57	79	61	79	44	162	46	37	9.9	10	29	8
9	21	52	95	61	60	41	154	38	36	10	11	37	9
10	23	153	122	57	55	40	151	35	34	9.8	10	28	10
11	29	274	127	54	57	42	138	34	30	10	11	25	11
12	26	615E	109	53	72	41	118	29	26	9.6	11	24	12
13	25	491	99	53	71	39*	117	25	24	9.0	10	23	13
14	24	201	89	53*	68	37	142	24	23	8.9	10	24	14
15	24	145	92	53	69	37	170	23	22	9.7	10	24	15
16	25	128	89	53	69*	38	163	24	20	11	9.9	25	16
17	28	113	81	53	67	40	143	26	19	11	9.1	24	17
18	28	128	79*	55	65	42	121	26	18*	9.6	9.4	23	18
19	31	99*	69	57	64	42	107	26	15	8.4	13	22	19
20	32	129	68	57	63	42	92	27	14	7.8	14	22	20
21	30	122	71	56	61	43	73	28	13	8.5	13	22	21
22	28	97	68	55	62	40	63	29	13	9.7	11	21	22
23	27	91	64	55	64	39	56	34	14	9.4	9.8	19	23
24	27	125	62	54	65	46	49	37	14	9.5*	9.0	19	24
25	27*	98	63	54	68	45	44	43	13	9.2	8.3	19	25
26	27	83	63	54	67	42	39	44	13	8.9	7.8	19	26
27	27	93	63	52	65	47	38	41	12	8.4	7.4	19	27
28	28	168	61	56	64	50	41	43	11	8.1	7.1	18	28
29	33	140	59	54		51	43	51	10	7.0	7.2	19	29
30	30	122	59	52		53	48	38	10	8.1	7.9	19	30
31	28		59	51		54		38		26	9.0		31
MONTHLY MEAN	25.4	143	83.3	55.2	62.0	47.0	95.7	38.4	23.9	10.0	11.0	21.3	
MAX	33	615E	127	64	79	66	170	66	59	26	24	37	
MIN	19	27	59	51	49	37	38	23	10	7.0	7.1	10	
ACFT	1561	8497	5123	3394	3445	2888	5697	2358	1420	614	676	1267	

MEAN FLOW	INSTANTANEOUS MAXIMUM FLOW, 1984-5 DATE	TIME	FLOW	G.H.	INSTANTANEOUS MINIMUM FLOW, 1984-5 DATE	TIME	FLOW	G.H.	TOTAL ACRE FEET
51.0	November 12	0015	617E	3.22	July 29	1715	6.4	0.96	36940

REMARKS:

Station located 200 feet downstream from Edgewood Road Bridge on left bank.

Flows affected by upstream diversions.

Station moved 700 feet upstream to present location on October 1, 1979.

Period of record for discharge is from March 1961 to October 1967 and from October 1978 to date.
Period of record for gage height is the same as for discharge.

The datum for this station from 1979 to present is 0.0, local.

FOR PERIOD OF RECORD BEGINNING 1961:

	FLOW CFS	GAGE HEIGHT	DATE	TIME
INSTANTANEOUS MAXIMUM	3320	6.65	January 26, 1983	1830
AVERAGE/YEAR	Not Available			

E = Estimated. NR = No record. * = Discharge measurement or observation of no flow.

TABLE B (CONTINUED)

DAILY MEAN DISCHARGE
IN CUBIC FEET PER SECOND

STATION NUMBER: F42100 NORTH FORK TRINITY RIVER AT HELENA

LOCATION: LAT 40-46-55, LONG 123-07-38, T34N, R11W, SEC. 20M, MD B&M TRINITY COUNTY

DRAINAGE AREA: 151.0 SQ MILES HYDROLOGIC AREA: F-06.A5

WATER YEAR OCTOBER 1984 through SEPTEMBER 1985

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	DAY
1	32	90	852	218	203	405	812	519	187	83	45	27	1
2	32	1020	745	212	196	381	1170	525	193	81	43	28	2
3	30	734	676	210*	186	350	1300	474	175	81	38	28	3
4	29	357	614	210	177	336	1250	382	201	80	35	26	4
5	30	242	565	215	170	315	1240	351	222	79	33	26	5
6	30	355	555	227	165	300	1320	351	392	77	32	26	6
7	30	378	541	255	192	288	1280	324	401	74	31	27	7
8	30	400	534	261	232	265	1160	308	335	72	31	37	8
9	34	405	519	273	228	254	1090	289	276	68	32	39	9
10	42	996	665	263	230	254	1060	270	252	65	32	46	10
11	119	2530	811	253	227	252	939	251	245	61	30	44	11
12	98	4540	737	245	495	257	812	239	275	59	29	40	12
13	217	2750	645	238	605	254	843	255	279	57	29	38	13
14	106	1640	570	231	578	255	949	288*	245	56	28	48	14
15	76	1080	532	228	607	261	968	269	243	54	28	46	15
16	76	800	469	249	680	275	802	295	225	53	27	39	16
17	72*	684	430	330	650	285	666	316	239	52	26	35	17
18	67	796	403	396	574	284	578	326	253	50	32	34	18
19	93	735	365	392	522*	295	507	338	242	47	37	32	19
20	136	705	343	385	481	307	450	328	226	45	34	29	20
21	102	648	321	374	445	302	418	316	195	45	32	28	21
22	87	567	300	354	459	282*	387	336	161	49*	30	27	22
23	83	550	289	333	506	270	370	390	152	47	28	26	23
24	82	805	279	312	518	325	356	394	133	43	27	26	24
25	77	722	273	290	505	281	334	379	113	40	26	28	25
26	104	610	270	272	472	289	321	383	100	39	28	28	26
27	98	679	259	255	432	290	360	311	96	40	28	27	27
28	110	1240	248	246	405	273	397	287	94	45	28	27	28
29	180	1070*	235	230		265	412	246	92	42	27	27	29
30	132	874	232	220		322	449	213	88	41	27	27	30
31	105		225	210		505		193		41	26		31
MONTHLY MEAN	81.9	967	468	271	398	299	767	327	211	57.0	30.9	32.2	
MAX	217	4540	852	396	680	505	1320	525	401	83	45	48	
MIN	29	90	225	210	165	252	321	193	88	39	26	26	
ACFT	5036	57520	28760	16640	22100	18400	45620	20120	12560	3503	1902	1916	

MEAN FLOW	INSTANTANEOUS MAXIMUM FLOW, 1984-5 DATE	TIME	FLOW	G.H.	INSTANTANEOUS MINIMUM FLOW, 1984-5 DATE	TIME	FLOW	G.H.	TOTAL ACRE FEET
323	November 12	0645	5470	14.30	September 6	2215	24	5.01	234077

REMARKS:

Station located 1.0 miles above mouth, 0.6 miles north of Helena.

Stage-discharge relationship affected by ice at times.

Period of record for discharge is from September 1957 to Date. Period of record for gage height is the same as discharge.

The datum for this station from 1957 to present is 0.0, local.

FOR PERIOD OF RECORD BEGINNING 1957:

	FLOW CFS	GAGE HEIGHT	DATE	TIME
INSTANTANEOUS MAXIMUM	35800	27.93	December 22, 1964	Not Available
AVERAGE/YEAR	Not Available			

E = Estimated. NR = No record. * = Discharge measurement or observation of no flow.

APPENDIX C

SURFACE WATER QUALITY

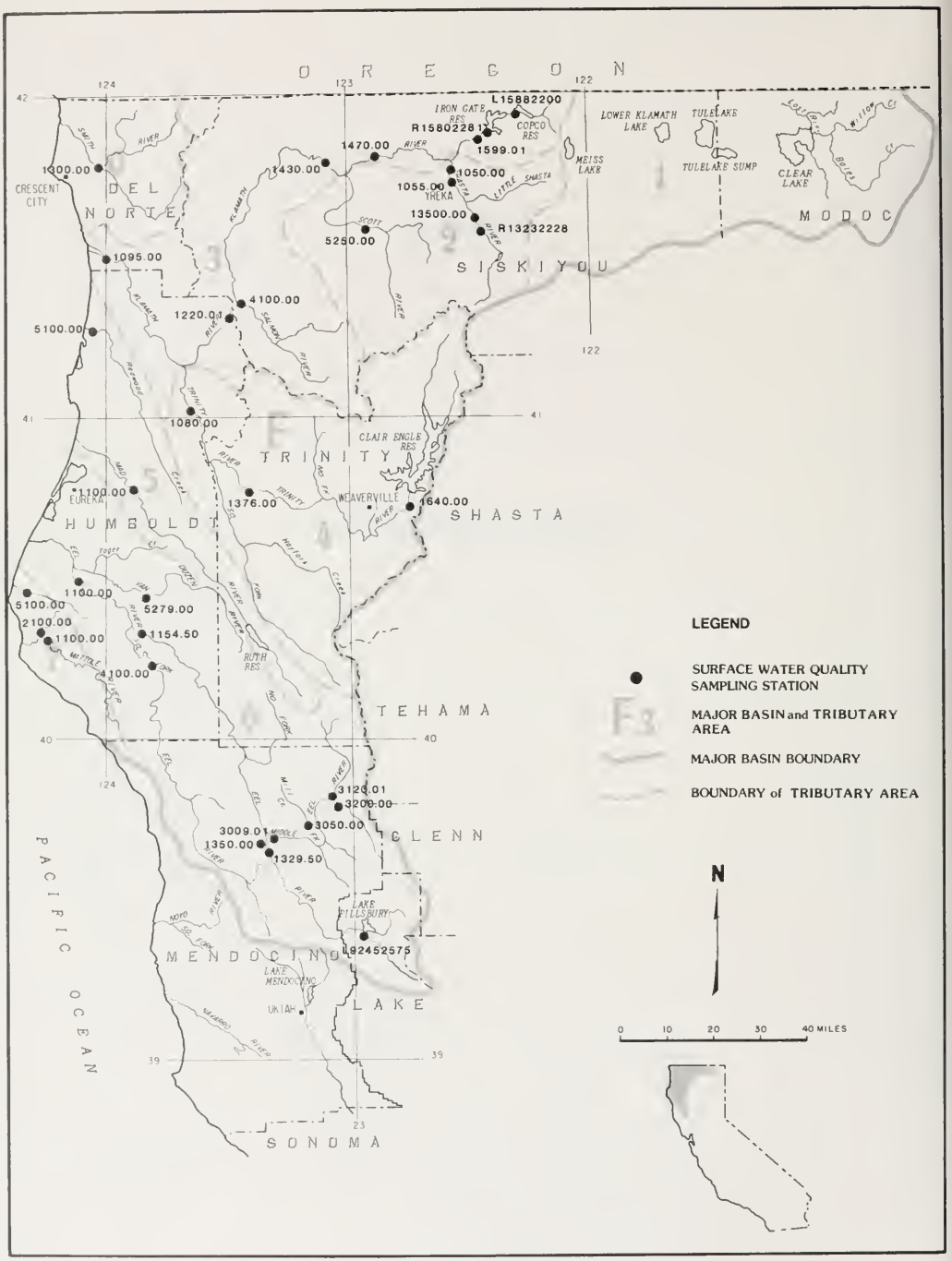


Figure 5 LOCATION OF SURFACE WATER QUALITY STATIONS

APPENDIX C
SURFACE WATER QUALITY

Appendix C lists surface water quality data for the North Coastal Area measured from October 1, 1984 to September 30, 1985. The data are presented in categories, as follows:

Table	Title
C-1	Mineral Analyses of Surface Water
C-2	Minor Element Analyses of Surface Water
C-3	Miscellaneous Analyses of Surface Water
C-4	Nutrient Analyses of Surface Water

The locations of the stations are shown on the facing page.

The first two characters of the station number indicate the major basin ("F" in this volume) and tributary area in which the station is located. The code numbers and names of the tributary areas for this volume are:

Code No.	Tributary	Code No.	Tributary
0	Smith River	4	Trinity River
1	Lost River-Butte Valley	5	Mad River
2	Shasta-Scott Valleys	6	Eel River
3	Klamath River	7	Mattole River

As with surface water measurement stations, surface water sampling stations are named after the stream and a nearby landmark or post office. An example of this is the station "Eel River, South Fork, near Miranda." If a sampling station is situated at the site of a surface water measurement station, each uses the same name.

Surface water quality stations are listed in the tables by ascending station number. The station number is found to the left, and the areal code to the right of the station name. The areal code is described on page 2.

To facilitate use of the surface water quality tables, a sampling station index is provided on page 25. This index lists the stations in the tables and gives location data for each. Also, the number of pages referenced indicates the extent of analysis for each station.

In order to increase the amount of information presented in the water quality tables, multiple headings are used at the top of the column, and data tabulated respectively. For example, the first column of Table C-1 shows the date of sampling printed above the time of sampling so the data are tabulated in that order. If a part of the values for a multiple heading column are obtained, they will appear in the column with respect to the heading positions. If dashes (or no data) appear in a column, it means no data was obtained.

At the time of field sampling, dissolved oxygen, pH, temperature, specific conductance and gage height are determined.

Abbreviations and codes used in each table are explained at the beginning of each table.

SAMPLING STATION INDEX
North Coastal Area

Station	Station Number	Location*	Areal Code	Beginning of Record	Analyses on Page
UBBY C NR SOMESBAR	F3 2264.00	14N/06E-22 H	F05C1	APR. 1984	43
EAIR A CAPETOWN	F7 5100.00	01N/03W-13 H	F12B0	MAY 1964	53, 59, 63
LA(BUTTE R NR COVELO	F6 3200.00	23N/11W-28 M	F11G1	NOV. 1964	53, 59, 63
LA] ENGLE LK NR FAIRVIEW BOAT RAMP	F4 L 049.0 245.9	34N/08W-10 M	F06D0	JULY 1976	49, 63
LE/ C NR HAPPY CAMP	F3 2315.00	15N/07E-07 H	F05C1	DEC. 1971	44, 45, 59, 62
DOC NR SOMESBAR	F3 2325.00	14N/06E-14 H	F05C1	DEC. 1971	45
OP(LK NR COPCO	F3 L 158.8 220.0	48N/04W-29 M	F05C7	JULY 1973	29, 61
ILIN C NR SOMESBAR	F3 2260.00	14N/06E-28 H	F05C1	NOV. 1971	42, 43, 59, 62
WI(ELL RES NR DAM	F2 R 132.3 222.6	43N/05W-25 M	F05E0	JUNE 1973	27, 61
EL A SCOTIA	F6 1100.00	01N/01E-05 H	F11A2	APR. 1951	51
EL A SOUTH FORK	F6 1154.50	01S/02E-26 H	F11C1	APR. 1951	51
EL AB OUTLET C NR DOS RIOS	F6 1329.50	21N/13W-31 M	F11F2	APR. 1958	51, 52
EL MF A DOS RIOS	F6 3009.01	21N/13W-06 M	F11D2	APR. 1958	52, 59, 63
EL MF AB BLACK BUTTE R	F6 3120.01	23N/11W-28 M	F11G1	FEB. 1965	52, 59
EL SF NR MIRANDA	F6 4100.00	03S/04E-30 H	F11C2	APR. 1951	53, 63
LK A MO A HAPPY CAMP	F3 4199.00	17N/07E-15 H	F05C1	AUG. 1984	49, 63
LL T C NR SOMESBAR	F3 2265.00	14N/06E-22 H	F05C1	DEC. 1971	43
T (FF C NR SEIAD VALLEY	F3 1425.00	46N/12W-05 M	F05C2	APR. 1984	38
RI R C NR SEIAD VALLEY	F3 4245.00	46N/12W-14 M	F05C3	SEPT. 1971	49
ND ENDENCE C NR CLEAR CREEK	F3 4180.00	15N/07E-30 H	F05C1	APR. 1984	49
NDN C AT MOUTH	F3 2329.00	16N/07E-11 H	F05C2	AUG. 1954	46, 47, 55, 59, 62
NDN C A SF INDIAN C BR	F3 2305.00	17N/07E-08 H	F05C2	APR. 1984	44
NDN C BL MILLPOND	F3 2303.00	17N/07E-22 H	F05C2	AUG. 1954	44
NDN C EF A MO	F3 2304.00	17N/07E-09 H	F05C2	APR. 1984	44
NDN C NR HAPPY CAMP	F3 2299.00	17N/07E-26 H	F05C2	SEPT. 1958	44
NDN C SF A BAR	F3 2306.00	17N/07E-07 H	F05C2	APR. 1984	44
RO ATE RES NR HORNBROOK	F3 R 156.0 226.1	47N/05W-09 M	F05C6	JUNE 1963	29, 61
NVG C NR SOMESBAR	F3 4155.00	12N/06E-04 H	F05C1	NOV. 1971	48
LATH R A KLAMATH GLEN	F3 1095.00	13N/02E-13 H	F05A1	JULY 1951	29, 61
LATH R A ORLEANS	F3 1220.01	11N/06E-31 H	F05A2	JAN. 1964	29, 30, 55, 57, 61
LATH R A R COLLIER REST STOP	F3 1585.00	46N/06W-08 M	F05C5	SEPT. 1973	42
LATH R A SARAH TOTTEN CAMPGROUND	F3 1460.00	46N/10W-31 M	F05C3	APR. 1984	40, 41, 55, 59, 62
LATH R AB DILLON C	F3 1330.00	14N/06E 28 H	F05C1	NOV. 1971	33, 34, 57, 62
LATH R AB HAMBURG RES SITE	F3 1470.00	46N/10W-14 M	F05C3	DEC. 1958	41
LATH R AB HAPPY CAMP	F3 1395.00	16N/07E-01 H	F05C2	APR. 1984	37, 38, 57, 62
LATH R AB INDEPENDENCE CREEK	F3 1333.00	15N/07E-30 H	F05C1	MAY 1984	34, 35, 57, 62
LATH R AB OAK FLAT CREEK	F3 1336.00	15N/07E-05 H	F05C1	APR. 1984	35, 36, 37, 55, 57, 62
LATH R AB SALMON RIVER	F3 1302.00	11N/06E-04 H	F05A2	OCT. 1956	30, 31, 57, 62
LATH R AB TI CREEK	F3 1327.00	14N/06E-09 H	F05C1	APR. 1984	32, 33, 55, 57, 62
LATH R BELOW SHASTA R	F3 1575.00	46N/07W-13 M	F05C4	SEPT. 1971	42
LATH R BL IRON GT DM	F3 1599.01	47N/05W-20 M	F05C6	DEC. 1961	42, 59, 62
LATH R NR SEIAD VLY	F3 1430.00	46N/12W-03 M	F05C2	DEC. 1958	38, 39, 40, 55, 57, 62
IT.E GRIDER C A HAPPY CAMP	F3 2328.00	16N/07E-15 H	F05C2	AUG. 1984	45
AD NR ARCATA	F5 1100.00	06N/01E-15 H	F09A0	NOV. 1958	50, 51
ATDLE R NF A PETROLIA	F7 2100.00	02S/02W-04 H	F12C0	OCT. 1977	53
ATDLE R NR PETROLIA	F7 1100.00	02S/02W-11 H	F12C0	JAN. 1959	53, 59, 63
IL C NR COVELO	F6 3050.00	22N/12W-22 M	F11G1	MAR. 1953	52, 63
NL C AT MOUTH	F3 4253.00	46N/11W-22 M	F05C3	JUNE 1972	49
AKFLAT C NR HAPPY CAMP	F3 2317.00	15N/07E-05 H	F05C1	APR. 1984	45
UTET C NR LONGVALE	F6 1350.00	20N/14W-01 M	F11F2	MAY 1958	52
OFJGUESE C NR SEIAD VALLEY	F3 2355.00	46N/12W-04 M	F05C2	SEPT. 1971	47
EDOD C A ORICK	F5 5100.00	10N/01E-04 H	F07A0	NOV. 1958	51
ALDN R A SOMESBAR	F3 4100.00	11N/06E-02 H	F05B1	NOV. 1958	47, 48, 59, 63
AMY BAR C NR SOMESBAR	F3 4160.00	13N/06E-29 H	F05C1	NOV. 1971	49
CCI R NR FORT JONES	F2 5250.00	44N/10W-29 M	F05D2	DEC. 1958	28, 57, 61
EID C NR SEIAD VALLEY	F3 2365.00	46N/12W-12 M	F05C3	SEPT. 1971	47
HITA R AB YREKA C	F2 1055.00	45N/06W-06 M	F05E0	MAY 1973	27, 28, 57, 61
HITA R NR GRENADA	F2 1350.00	44N/06W-23 M	F05E0	APR. 1947	28, 57, 61
HITA R NR YREKA	F2 1050.00	46N/07W-24 M	F05E0	DEC. 1958	27, 57, 61
MIH R NR CRESCENT CITY	F0 1300.00	16N/01E-11 H	F03C0	APR. 1951	27
WILUP C NR SOMESBAR	F3 2270.00	14N/06E-14 H	F05C1	OCT. 1950	44
MCPSON CR NR HAPPY CAMP	F3 1417.00	17N/08E-17 H	F05C2	APR. 1984	38
I REEK NR SOMESBAR	F3 4170.00	13N/06E-16 H	F05C1	NOV. 1971	49
RITY R A HOOPA	F4 1080.00	08N/04E-25 H	F06A1	APR. 1951	50, 63
R ITY R A LEWISTON	F4 1640.00	33N/08W-17 M	F06C1	APR. 1951	50, 63
RITY R NR BURNT RH	F4 1376.00	05N/07E-19 H	F06A3	APR. 1958	50
MADUZEN R NR BRIGEVILLE	F6 5279.00	01N/02E-12 H	F11B3	APR. 1958	53, 59, 63
MER C NR SEIAD VALLEY	F3 4250.00	46N/11W-18 M	F05C3	SEPT. 1971	49

= umbolt Base and Meridian
= ount Diablo Base and Meridian

TABLE C-1
MINERAL ANALYSES OF SURFACE WATER

Lab and Sampler Agency Code

5050 – Department of Water Resources

Abbreviations and Constituents

TIME – Pacific Standard Time on a 24-hour clock
G. H. – Instantaneous gage height in feet above an established datum
Q – Instantaneous discharge in cubic feet per second (E = Estimated)
DO – Dissolved oxygen content in milligrams per liter
SAT – Percent of normal dissolved oxygen saturation
TEMP – Water temperature at time of sampling in degrees Fahrenheit (F) or Celcius (C)
Field – Determined in the field
Laboratory – Determined in the laboratory
pH – Measure of acidity or alkalinity of water
EC – Electrical conductance in microseimens at 25°C

Constituents:

B	–	Boron	K	–	Potassium
CA	–	Calcium	MG	–	Magnesium
CACO3	–	Calcium Carbonate	NA	–	Sodium
CL	–	Chloride	NO3	–	Nitrate
F	–	Fluoride	SIO2	–	Silica
			SO4	–	Sulfate

Boron, Fluoride, and Silica are reported in milligrams per liter. The other minerals are reported in each of three units; milligrams per liter, milliequivalents per liter, and percent reactance value; accordingly, each observation can use three lines of tabulation.

MILLIEQUIVALENTS PER LITER is the concentration in Mg/l divided by the equivalent weight of the ion.

PERCENT REACTANCE VALUE is determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter, arriving at a percentage.

TDS – Gravimetric determination of total dissolved solids at 180°C
SUM – Total dissolved solids by summation of analyzed constituents minus 40 percent of analyzed constituents
TH – Total Hardness
NCH – Noncarbonate hardness – any excess of total hardness over total alkalinity
TURB – Jackson Turbidity Units measured with Hellege Turbidimeter (E) or a Hach Nephelometer (A) with (F) for field determinations
SAR – Sodium Adsorption ratio
ASAR – Adjusted sodium adsorption ratio
REM – Remarks; code letter are:
- T – Total dissolved solids and the calculated sum of constituents are not within 20 percent of each other.
- E – Total Dissolved Solids (TDS) value is not within the range of 0.35 to 0.70 of the electrical conductivity.
- S – The anion sum and cation sum for a complete analysis is not within the prescribed tolerance of ± 5 percent.

TABLE C-1

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	DO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	MILLIGRAMS PER LITER CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	PE
	FO 1300.00			SMITH R NR CRESCENT CTY								FO3CO								
10/22/84	5050	8.86	11.3	50.9F	7.8	125	--	--	--	--	--	--	--	--	--	--				
1700	5050	875	101	10.5C											1AF	--				
12/03/84	5050	14.63	12.5	48.2F	7.3	82	--	--	--	--	--	--	--	--	--	--				
1425	5050	8110	108	9.0C											3AF	--				
02/05/85	5050	9.13		41.0F	7.4	111	6.0	9.0	2.0	--	48	--	2.0	--	.0	--		52	0.1	
1450	5050	1010		5.0C	8.0	106	.30	.74	.09		.96		.06		1A	--		4	0.1	
							27	65	8											S
04/16/85	5050	10.69	11.6	50.0F	7.4	88	--	--	--	--	--	--	--	--	--	--				
0730	5050	2200	103	10.0C											3AF	--				
																				S
06/04/85	5050	9.44	10.8	57.2F	7.4	96	--	--	--	--	--	--	--	--	--	--				
1720	5050	1210	105	14.0C											1AF	--				
																				S
08/05/85	5050	7.77	10.1	69.8F	8.2	137	--	--	--	--	--	--	--	--	--	--				
1640	5050	360	113	21.0C											1AF	--				
																				S
09/30/85	5050	7.51	10.5	60.8F	8.0	138	--	--	--	--	--	--	--	--	--	--				
1530	5050	258	106	16.0C											1AF	--				
																				S
	F2 R 132.3 222.6			DeINNELL RES NR OR								FO5EO								
05/22/85	5050		9.8	68.0F	8.3	268	14	27	15	1.9	--	7.0	6.0	--	.1	--		146	0.0	
1000	5050		119	20.0C			.70	2.22	.65	.05		.15	.17		2AF	--				
		0					19	61	18	1										S
09/19/85	5050		9.4	63.0F	8.4	345	16	28	19	2.2	--	8.0	9.0	--	.2	--		155	0.0	
1300	5050		107	17.2C			.80	2.30	.83	.06		.17	.25		4AF	--				
		0					20	58	21	2										S
	F2	1050.00		SHASTA R NR YREKA								FO5EO								
10/23/84	5050	3.30	10.4	53.6F	8.4	478	--	--	--	--	--	--	--	--	--	--	145			
1430	5050	220	103	12.0C											3A	--				
11/26/84	5050	3.83	12.3	41.9F	8.4	353	--	--	--	--	--	--	--	--	--	--				
1630	5050	338	104	5.5C											4AF	--				
12/18/84	5050	3.74	12.0	40.1F	8.4	518	30	32	37	--	247	--	19	--	.4	--		207	1.1	
0943	5050	304	99	4.5C	8.2	530	1.50	2.63	1.61		4.94		.54		3A	--		0	2.4	
							26	46	28											S
01/08/85	5050	3.61	11.2	44.6F	8.4	480	--	--	--	--	--	--	--	--	--	--				
1600	5050	254	99	7.0C											3AF	--				
02/27/85	5050	3.68	11.9	47.3F	8.6	439	--	--	--	--	--	--	--	--	--	--				
1200	5050	264	109	8.5C											4AF	--				
03/12/85	5050	3.59	12.5	48.2F	8.6	468	--	--	--	--	--	--	--	--	--	--				
1255	5050	233	115	9.0C											4AF	--				
04/16/85	5050	4.16	9.5	62.6F	8.6	534	--	--	--	--	--	--	--	--	--	--				
1535	5050	107	105	17.0C											3AF	--				
05/08/85	5050	3.07	10.0	64.4F	8.5	550	37	37	38	--	283	--	21	--	.2	--		245	1.1	
1315	5050	91	113	18.0C	8.2	573	1.85	3.04	1.65		5.65		.59		3A	--		0	2.4	
							28	46	25											S
06/13/85	5050	2.84	9.2	80.6F	8.6	591	--	--	--	--	--	--	--	--	--	--				
1420	5050	52	123	27.0C											3AF	--				
07/09/85	5050	2.62	9.1	77.0F	8.6	636	--	--	--	--	--	--	--	--	--	--				
1145	5050	24	117	25.0C											2AF	--				
08/21/85	5050	2.73	9.0	62.6F	8.6	615	--	--	--	--	--	--	--	--	--	--	398			
0620	5050	37	99	17.0C											1A	--				
09/10/85	5050	3.48	9.6	57.2F	8.4	585	--	--	--	--	--	--	--	--	--	--	380			
1125	5050	210	99	14.0C											7A	--				
	F2	1055.00		SHASTA R AB YREKA C								FO5EO								
10/23/84	5050		10.5	51.8F	8.1	504	--	--	--	--	--	--	--	--	--	--				
1155	5050	120E	103	11.0C											4AF	--				
11/26/84	5050		12.0	42.8F	8.2	548	--	--	--	--	--	--	--	--	--	--				
1645	5050	200E	104	6.0C											6AF	--				
12/18/84	5050		12.0	39.2F	8.1	518	--	--	--	--	--	--	--	--	--	--				
0915	5050	300E	99	4.0C											3AF	--				
01/08/85	5050		12.5	44.6F	8.3	482	28	30	39	--	235	--	21	--	.4	--		194	1.2	
1625	5050	200E	111	7.0C	8.7	514	1.40	2.47	1.70		4.70		.59		3A	--		0	2.6	
							25	44	31											S
02/27/85	5050		12.0	46.4F	8.3	428	25	27	35	--	213	--	18	--	.4	--		174	1.2	
1220	5050	240E	109	8.0C	8.4	470	1.25	2.22	1.52		4.26		.51		4A	--		0	2.4	
							25	44	30											S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	DO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER					
							CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUM	TH MCH	SAR ASAR	REM
	F2	1355.00			SHASTA R AB YREKA C							FOSED CONTINUED								
33/12/85 1305	5050 5050	175E	12.2 119	51.8F 11.0C	8.4	447	--	--	--	--	--	--	--	--	-- 4AF	-- --				
34/16/85 1105	5050 5050	150E	11.1 121	50.8F 10.0C	8.2 9.0	575 597	34 1.70 26	36 2.96 44	46 2.00 30	--	267 5.73	--	26 .73	--	.6 2A	-- --		233 0	1.3 3.0	S
05/08/85 1300	5050 5050	60E	12.1 132	60.8F 16.0C	8.2	495	--	--	--	--	--	--	--	--	-- 3AF	-- --				
36/13/85 1030	5053 5053	35E	9.7 122	73.4F 23.0C	8.3 7.7	649 653	49 2.45 27	50 4.11 46	54 2.35 26	--	322 6.43	--	25 .71	--	.6 3A	-- --		328 7	1.3 3.2	S
07/09/85 1125	5050 5050	35E	9.6 125	77.0F 25.0C	8.6 8.5	627 623	38 1.90 26	39 3.21 45	48 2.09 29	--	307 6.13	--	26 .73	--	.6 2A	-- --		256 0	1.3 3.1	S
38/19/85 1345	5053 5053	40E	12.3 127	71.6F 22.0C	9.4	656	--	--	--	--	--	--	--	--	-- 2AF	-- --				S
39/10/85 1100	5050 5050	100E	9.0 95	58.1F 14.5C	8.0	576	--	--	--	--	--	--	--	--	-- 7AF	-- --				S
	F2	1350.00			SHASTA R NR GRENADA							FOSED								
10/23/84 1115	5050 5050	125E	10.2 100	51.8F 11.0C	7.9	442	--	--	--	--	--	--	--	--	-- 3AF	-- --				S
11/26/84 1230	5050 5050	200E	11.7 105	44.6F 7.0C	7.9	491	--	--	--	--	--	--	--	--	-- 3AF	-- --				S
12/17/84 1330	5050 5050		11.9 104	42.8F 6.0C	8.0	457	--	--	--	--	--	--	--	--	-- 2AF	-- --				S
31/08/85 1150	5050 5050	250E	10.9 103	46.4F 8.0C	8.0	449	--	--	--	--	--	--	--	--	-- 3AF	-- --				S
32/25/85 0940	5050 5050	130E	10.0 95	50.0F 10.0C	8.0 8.3	426 451	23 1.15 23	29 2.38 48	34 1.48 30	--	203 4.06	--	18 .51	--	.4 2A	-- --		177 0	1.1 2.3	S
03/12/85 1140	5050 5050	120E	10.7 102	49.1F 9.5C	8.2 8.6	437 437	21 1.05 23	26 2.14 47	32 1.39 30	--	196 3.92	--	19 .54	--	1.3 1A	-- --		160 0	1.1 2.2	S
34/16/85 1030	5050 5050	150E	9.5 108	62.6F 17.0C	8.2	476	--	--	--	--	--	--	--	--	-- 3AF	-- --				
05/08/85 1220	5050 5050	125E	12.1 133	60.8F 16.0C	8.3	583	--	--	--	--	--	--	--	--	-- 4AF	-- --				
35/13/85 1310	5050 5050	65E	8.3 99	68.0F 20.0C	8.1	494	--	--	--	--	--	--	--	--	-- 3AF	-- --				
37/09/85 1050	5050 5050	100E	9.5 116	70.7F 21.5C	8.2	476	--	--	--	--	--	--	--	--	-- 3AF	-- --				
38/19/85 1305	5050 5050	130E	10.4 120	65.3F 18.5C	8.2	462	--	--	--	--	--	--	--	--	-- 2AF	-- --				
39/10/85 1020	5050 5050	100E	6.9 94	58.1F 14.5C	7.9	498	--	--	--	--	--	--	--	--	-- 3AF	-- --				
	F2	5250.00			SCOTT R NR FORT JONES							FOSOZ								
11/26/84 1330	5050 5050	650	13.3 108	39.2F 4.0C	7.4	178	--	--	--	--	--	--	--	--	-- 5A	-- --	104			
01/08/85 1305	5050 5050	6.55 334	12.9 110	41.0F 5.0C	7.9	222	--	--	--	--	--	--	--	--	-- 1AF	-- --				
31/12/85 1420	5050 5050	6.19 396	11.3 109	49.1F 9.5C	8.2 8.6	217 221	21 1.05 4E	13 1.07 47	4.0 .17 7	--	100 2.00	--	3.0 .09	--	.0 1A	-- --		106 6	0.2 0.3	S
35/08/85 1530	5050 5050	6.88 538	9.9 105	58.1F 14.5C	8.1 8.4	153 151	13 .65 43	9.0 .74 49	3.0 .13 9	--	70 1.40	--	2.0 .06	--	.0 1A	-- --	95	70 0	0.2 0.2	
37/09/85 1430	5050 5050	5.25 83	8.9 113	73.4F 23.0C	8.4	269	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
38/10/85 1445	5050 5050	4.94 35	9.6 109	59.9F 15.5C	8.4	289	--	--	--	--	--	--	--	--	-- 9A	-- --	172			S

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	DO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B JURP	F SIO2	TDS SUM	TH NCH	SAR ASAR	REM
	F3 L 156.0 226.3			COPCO LK NR COPCO								FOSC2								
05/21/85 1800	5050 5050	0	13.6 160	66.9F 19.4C	8.3	137	10 .50 34	5.0 .41 28	12 .52 35	2.0 .05 3	--	9.0 .19	3.0 .08	--	.0 2AF	-- --		46	0.0	S
08/19/85 0845	5050 5050	0	7.0 76	59.4F 15.2C	7.4	200	12 .60 28	7.0 .58 27	20 .87 41	3.1 .08 4	--	20 .42	4.0 .11	--	.1 2AF	-- --		59	0.0	S
	F3 R 156.0 226.1			IRONGATE RES NR HORNBROOK								FOSC6								
05/22/85 0745	5050 5050	0	12.5 147	67.3F 19.6C	8.4	131	10 .50 33	5.0 .41 28	11 .48 33	2.0 .05 3	--	7.0 .15	2.0 .06	--	.0 3AF	-- --		46	0.0	S
08/19/85 0715	5050 5050	0	5.4 60	62.1F 16.7C	7.3	207	12 .60 29	7.0 .58 28	19 .83 40	3.0 .08 4	--	18 .37	4.0 .11	--	.1 3AF	-- --		59	0.0	S
	F3 1095.00			KLAMATH R A KLAMATH GLEN								FOSA1								
10/22/84 1555	5050 5050	8.90 8860	11.1 114	62.6F 17.0C	8.1	186	--	--	--	--	--	--	--	--	-- 6AF	-- --				
12/03/84 1335	5050 5050	15.20 45900	12.2 103	46.4F 8.0C	7.4	128	--	--	--	--	--	--	--	--	-- 21AF	-- --				
02/05/85 1335	5050 5050	8.83 9.70	14.5	43.7F 6.5C	8.3	157	--	--	--	--	--	--	--	--	-- 3AF	-- --				
04/15/85 1845	5050 5050	13.59 33500	10.6 99	54.5F 12.5C	7.3	119	--	--	--	--	--	--	--	--	-- 10AF	-- --				
05/04/85 1615	5050 5050	7.10 3300	10.4 107	62.6F 17.0C	7.8	143	--	--	--	--	--	--	--	--	-- 2AF	-- --				
08/05/85 1255	5050 5050	6.78 3280	10.1 115	71.6F 22.0C	8.4 8.2	180 183	17 .85 46	8.0 .66 35	8.0 .35 19	--	78 1.56	--	4.0 .11	--	.1 2A	-- --		76 0	0.4 0.5	S
09/30/85 1420	5050 5050	7.13 3940	11.9 124	63.5F 17.5C	8.3	193	--	--	--	--	--	--	--	--	-- 2AF	-- --				
	F3 1220.01			KLAMATH R A ORLEANS								FOSA2								
10/02/84 1345	5050 5050	1.98 2850	11.1 116	62.6F 17.0C	8.2	229	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/02/84 1720	5050 5050		10.3 107	62.6F 17.0C	8.1	230	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/02/84 2110	5050 5050		9.5 99	62.6F 17.0C	8.3	231	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/03/84 0640	5050 5050		9.7 97	59.5F 15.3C	8.1	233	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/03/84 1005	5050 5050	1.97 2820	10.4 106	60.8F 16.0C	8.0 8.0	231 234	16 .80 33	10 .82 34	18 .78 33	--	90 1.80	--	6.0 .17	--	.1 2AF	-- --		81 0	0.9 1.2	S
10/22/84 1140	5050 5050	3.93 5620	11.2 107	55.4F 13.0C	8.0 7.8	184 191	13 .65 34	8.0 .66 34	14 .61 32	--	74 1.48	--	4.0 .11	--	.0 7A	-- --		66 0	0.7 0.9	S
02/26/85 1415	5050 5050	5.43 6280	12.7 108	46.0F 7.8C	7.8	148	--	--	--	--	--	--	--	--	-- 3AF	-- --				
02/26/85 1750	5050 5050		12.5 104	45.0F 7.2C	8.0	152	--	--	--	--	--	--	--	--	-- 3AF	-- --				
02/26/85 2200	5050 5050		12.1 100	44.1F 6.7C	7.8	151	--	--	--	--	--	--	--	--	-- 6AF	-- --				
02/27/85 0710	5050 5050		10.6 85	41.0F 5.0C	7.9	151	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/27/85 1060	5050 5050		12.6 102	43.0F 6.1C	7.8 8.1	151 156	14 .70 42	8.0 .66 40	7.0 .30 18	--	66 1.32	--	2.0 .06	--	.0 2A	-- --		68 2	0.4 0.4	S
03/05/85 1315	5050 5050		13.6 113	43.7F 6.5C	8.8	157	--	--	--	--	--	--	--	--	-- 2AF	-- --				
04/15/85 1415	5050 5050	9.99 19000	11.2 107	55.4F 13.0C	7.5	113	--	--	--	--	--	--	--	--	-- 6AF	-- --				
05/13/85 1445	5050 5050		10.0 99	56.0F 14.4C	7.7	131	--	--	--	--	--	--	--	--	-- 2AF	-- --				
08/13/85 1630	5050 5050		10.5 102	57.0F 13.9C	8.0	134	--	--	--	--	--	--	--	--	-- 2AF	-- --				

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	DO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	REM
	F3 1220.01		KLAMATH R A ORLEANS									FO5A2 CONTINUED								
05/13/85	5050		10.6	57.2F	8.2	132	--	--	--	--	--	--	--	--	--	--				
2140	5050		104	14.0C											2AF	--				
05/14/85	5050		10.7	54.0F	7.4	130	--	--	--	--	--	--	--	--	--	--				
0500	5050		101	12.2C											1AF	--				
05/14/85	5050		10.9	55.0F	7.9	126	--	--	--	--	--	--	--	--	--	--				
0935	5050		104	12.8C											2AF	--				
05/14/85	5050		10.9	57.0F	8.0	130	--	--	--	--	--	--	--	--	--	--				
1305	5050		106	13.9C											2AF	--				
05/14/85	5050		10.5	59.4F	8.1	131	--	--	--	--	--	--	--	--	--	--				
1635	5050		105	15.2C											2AF	--				
05/14/85	5050		10.3	57.2F	8.2	128	--	--	--	--	--	--	--	--	--	--				
2210	5050		101	14.0C											2AF	--				
05/15/85	5050		10.3	54.0F	7.7	129	12	6.0	5.0	--	57	--	2.0	--	.0	--		54	0.3	
0805	5050		97	12.2C	7.9	126	.60	.49	.22		1.14		.06		1A	--		0	0.3	
							46	37	17											S
05/15/85	5050		10.5	55.0F	7.4	127	--	--	--	--	--	--	--	--	--	--				
0830	5050		100	12.8C											2AF	--				
																				S
05/15/85	5050		10.9	57.9F	7.8	127	--	--	--	--	--	--	--	--	--	--				
1420	5050		107	14.4C											2AF	--				
																				S
06/04/85	5050	3.59	10.6	60.8F	7.9	149	--	--	--	--	--	--	--	--	--	--				
1200	5050	5120	108	16.0C											1AF	--				
																				S
08/12/85	5050		9.6	73.4F	8.4	188	--	--	--	--	--	--	--	--	--	--				
1400	5050	1600E	112	23.0C											2AF	--				
																				S
08/12/85	5050		9.2	71.6F	8.4	188	--	--	--	--	--	--	--	--	--	--				
1745	5050		106	22.0C											3AF	--				
																				S
08/12/85	5050		5.3	72.0F	8.3	188	--	--	--	--	--	--	--	--	--	--				
2010	5050		96	22.2C											3AF	--				
																				S
08/13/85	5050		8.1	70.0F	7.9	187	--	--	--	--	--	--	--	--	--	--				
0540	5050		91	21.1C											3AF	--				
																				S
08/13/85	5050		9.0	70.7F	8.4	185	--	--	--	--	--	--	--	--	--	--				
0855	5050	1600E	102	21.5C											3AF	--				
																				S
08/13/85	5050		9.4	72.5F	8.6	186	--	--	--	--	--	--	--	--	--	--				
1430	5050		109	22.5C											3AF	--				
																				S
08/13/85	5050		9.7	72.0F	8.6	186	--	--	--	--	--	--	--	--	--	--				
1800	5050		112	22.2C											4AF	--				
																				S
08/13/85	5050		8.4	71.6F	8.3	185	--	--	--	--	--	--	--	--	--	--				
2040	5050		96	22.0C											3AF	--				
																				S
08/14/85	5050		5.2	70.7F	8.2	184	--	--	--	--	--	--	--	--	--	--				
0505	5050		93	21.5C											3AF	--				
																				S
08/14/85	5050		8.9	71.6F	8.1	184	15	8.0	12	--	79	--	4.0	--	.1	--		70	0.6	
0920	5050	1600E	102	22.0C	8.3	187	.75	.66	.52		1.58		.11		1A	--		0	0.8	
							39	34	27											S
08/14/85	5050		9.6	73.4F	8.3	185	--	--	--	--	--	--	--	--	--	--				
1315	5050		112	23.0C											3AF	--				
08/30/85	5050	1.28	10.4	62.6F	8.0	206	--	--	--	--	--	--	--	--	--	--				
1050	5050	2080	106	17.0C											2AF	--				
	F3 1302.00		KLAMATH R AB SALMON RIVER									FO5A2								
10/02/84	5050		10.2	64.4F	8.7	238	--	--	--	--	--	--	--	--	--	--				
1255	5050		109	18.0C											2AF	--				
10/02/84	5050		10.0	63.5F	8.1	238	--	--	--	--	--	--	--	--	--	--				
1750	5050		106	17.5C											1AF	--				
10/02/84	5050		10.2	61.7F	8.4	239	--	--	--	--	--	--	--	--	--	--				
2035	5050		109	16.5C											2AF	--				
10/03/84	5050		9.9	59.9F	8.1	239	--	--	--	--	--	--	--	--	--	--				
0540	5050		100	15.5C											2AF	--				
10/03/84	5050		10.4	60.8F	7.9	239	15	10	19	--	91	--	6.0	--	.0	--		78	0.9	
0930	5050		106	16.0C	8.0	243	.75	.82	.83		1.82		.17		2AF	--		0	1.3	
							31	34	35											S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. D	DO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B	F	TDS SUM	TH NCH	SAR ASAP	RES
	F3	1302.00		KLAMATH R AB SALMON RIVER								FOSAZ CONTINUED								
02/26/85 1315	5050 5050		12.7 106	45.0F 7.2C	7.9	160	--	--	--	--	--	--	--	--	--	--	--	--	--	
02/26/85 1710	5050 5050		12.6 106	45.0F 7.2C	7.8	160	--	--	--	--	--	--	--	--	--	--	--	--	--	
02/26/85 2120	5050 5050		12.5 103	44.1F 6.7C	8.0	164	--	--	--	--	--	--	--	--	--	--	--	--	--	
02/27/85 0540	5050 5050		12.0 92	38.0F 3.3C	8.1	157	--	--	--	--	--	--	--	--	--	--	--	--	--	
02/27/85 0930	5050 5050		12.6 103	43.0F 6.1C	7.7	156	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/13/85 1400	5050 5050		10.5 104	58.0F 14.4C	7.8	147	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/13/85 1600	5050 5050		10.7 107	59.0F 15.0C	8.1	146	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/85 0430	5050 5050		10.6 101	55.0F 12.8C	7.6	148	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/85 0850	5050 5050		10.9 105	56.0F 13.3C	7.9	149	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/85 1210	5050 5050		10.6 105	58.0F 14.4C	8.1	148	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/85 1605	5050 5050		10.5 107	60.8F 16.0C	8.1	142	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/85 2115	5050 5050		10.5 104	58.1F 14.5C	8.1	146	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/15/85 0515	5050 5050		10.7 102	55.0F 12.8C	7.9 8.0	143 149	12 .60 39	8.0 .66 43	6.0 .26 17	--	67 1.34	--	2.0 .06	--	.0 1A	--		63 0	0.3 0.4	5
05/15/85 0800	5050 5050		10.5 102	56.0F 13.3C	7.8	143	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/15/85 1340	5050 5050		10.8 111	62.6F 17.0C	8.0	145	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/12/85 1300	5050 5050		9.2 108	73.4F 23.0C	8.1	206	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/12/85 1700	5050 5050		8.8 105	75.2F 24.0C	8.5	184	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/12/85 1930	5050 5050		8.5 99	73.0F 22.8C	8.3	190	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/13/85 0500	5050 5050		8.6 97	70.0F 21.1C	8.2	192	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/13/85 0825	5050 5050		9.4 104	69.8F 21.0C	8.0	193	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/13/85 1310	5050 5050			72.5F 22.5C	8.5	204	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/13/85 1640	5050 5050		9.3 110	73.9F 23.3C	8.7	196	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/13/85 2010	5050 5050		8.7 101	72.5F 22.5C	8.3	195	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/14/85 0430	5050 5050		8.9 103	71.6F 22.0C	8.2	194	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/14/85 0835	5050 5050		9.2 105	70.7F 21.5C	8.0	194	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/14/85 1240	5050 5050		9.0 105	72.5F 22.5C	8.3	197	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/20/85 1315	5050 5050		9.3 105	70.7F 21.5C	8.5	186	--	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q	OO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER CA	MG	NA	K	MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TUR@	F SIO2	TDS SUM	TH NCH	SAR ASAR	REM
	F3	1327.00		KLAMATH R AB TI CREEK								FOSC1								
10/02/84	5050		11.6	63.5F	8.2	241	--	--	--	--	--	--	--	--	--	--				
1220	5050		123	17.5C											1AF	--				
10/02/84	5050		11.4	61.7F	8.1	240	--	--	--	--	--	--	--	--	--	--				
1625	5050		119	16.5C											1AF	--				
10/02/84	5050		9.6	60.8F	8.2	242	--	--	--	--	--	--	--	--	--	--				
2005	5050		99	16.0C											2AF	--				
10/03/84	5050		8.9	59.0F	8.3	242	--	--	--	--	--	--	--	--	--	--				
0500	5050		90	15.0C											3AF	--				
10/03/84	5050		10.5	59.9F	8.2	241	16	10	20	--	92	--	6.0	--	.1	--		81	1.0	
0900	5050		107	15.5C	8.0	245	.80	.82	.87		1.84		.17		2AF	--		0	1.4	
							32	33	35											S
02/26/85	5050		12.9	44.1F	8.0	157	--	--	--	--	--	--	--	--	--	--				
1250	5050		108	6.7C											3AF	--				
02/26/85	5050		12.5	44.1F	7.8	161	--	--	--	--	--	--	--	--	--	--				
1640	5050		104	6.7C											3AF	--				
02/26/85	5050		11.6	43.0F	8.0	161	--	--	--	--	--	--	--	--	--	--				
2100	5050		95	6.1C											4AF	--				
02/27/85	5050		11.8	39.9F	8.0	158	--	--	--	--	--	--	--	--	--	--				
0605	5050		93	4.4C											6AF	--				
02/27/85	5050		12.1	42.0F	7.5	164	15	10	9.0	--	73	--	3.0	--	.0	--		78	0.4	
0900	5050		98	5.6C	8.1	172	.75	.82	.39		1.46		.08		2A	--		6	0.6	
							38	42	20											S
03/05/85	5050		13.0	42.8F	6.8	174	--	--	--	--	--	--	--	--	--	--				
1420	5050		107	6.0C											2AF	--				
05/13/85	5050		10.2	50.0F	8.0	149	--	--	--	--	--	--	--	--	--	--				
1330	5050		102	14.4C											3AF	--				
05/13/85	5050		10.8	50.0F	8.2	148	--	--	--	--	--	--	--	--	--	--				
1525	5050		108	14.4C											2AF	--				
05/13/85	5050		10.3	57.2F	8.2	150	--	--	--	--	--	--	--	--	--	--				
2000	5050		102	14.0C											2AF	--				
05/14/85	5050		9.8	54.0F	7.6	151	--	--	--	--	--	--	--	--	--	--				
0400	5050		93	12.2C											2AF	--				
05/14/85	5050		10.5	56.0F	8.0	149	--	--	--	--	--	--	--	--	--	--				
0720	5050		102	13.3C											2AF	--				
05/14/85	5050		10.5	57.0F	8.1	147	--	--	--	--	--	--	--	--	--	--				
1145	5050		104	13.9C											2AF	--				
05/14/85	5050		10.6	59.0F	8.2	145	--	--	--	--	--	--	--	--	--	--				
1530	5050		107	15.0C											2AF	--				
05/14/85	5050		9.8	56.3F	8.2	148	--	--	--	--	--	--	--	--	--	--				
2030	5050		96	13.5C											2AF	--				
05/15/85	5050		10.0	56.0F	8.0	150	13	8.0	6.0	--	67	--	2.0	--	.0	--		66	0.3	
0445	5050		97	13.3C	7.9	149	.65	.66	.26		1.34		.06		1A	--		0	0.4	
							41	42	17											S
05/15/85	5050		9.9	55.0F	7.6	145	--	--	--	--	--	--	--	--	--	--				
0650	5050		95	12.8C											2AF	--				
																				S
05/15/85	5050		10.6	59.9F	8.1	144	--	--	--	--	--	--	--	--	--	--				
1305	5050		108	15.5C											2AF	--				
																				S
08/12/85	5050		9.3	73.4F	8.2	197	--	--	--	--	--	--	--	--	--	--				
1230	5050		110	23.0C											3AF	--				
																				S
08/12/85	5050		9.6	73.4F	8.6	195	--	--	--	--	--	--	--	--	--	--				
1615	5050		114	23.0C											3AF	--				
																				S
08/12/85	5050		8.4	72.5F	8.3	194	--	--	--	--	--	--	--	--	--	--				
1905	5050		98	22.5C											4AF	--				
																				S
08/13/85	5050		7.8	69.1F	8.2	194	--	--	--	--	--	--	--	--	--	--				
0430	5050		88	20.6C											3AF	--				
																				S
08/13/85	5050		8.5	68.9F	8.1	194	--	--	--	--	--	--	--	--	--	--				
0800	5050		96	20.5C											5AF	--				
																				S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q	DO SAT	TEMP	FIELD PH	FIELD EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	RE*
	F3 1327.00			KLAMATH R AB TI CREEK								FO5C1 CONTINUED								
08/13/85 1220	5050 5050		9.1 108	73.4F 23.0C	8.7	195	--	--	--	--	--	--	--	--	-- 3AF	-- --				S
08/13/85 1600	5050 5050		10.1 121	75.0F 23.9C	8.6	195	--	--	--	--	--	--	--	--	-- 3AF	-- --				S
08/13/85 1930	5050 5050		8.5 100	72.5F 22.5C	8.1	194	--	--	--	--	--	--	--	--	-- 3AF	-- --				S
08/14/85 0400	5050 5050		8.2 93	69.8F 21.0C	8.2	199	--	--	--	--	--	--	--	--	-- 7AF	-- --				S
08/14/85 0805	5050 5050		8.5 97	69.8F 21.0C	8.2 8.2	196 199	14 .70 35	9.0 .74 37	13 .57 28	--	83 1.66	--	5.0 .14	--	.1 2A	-- --		72 0	0.7 0.9	S
08/14/85 1210	5050 5050		9.7 116	74.3F 23.5C	8.5	200	--	--	--	--	--	--	--	--	-- 7AF	-- --				
08/20/85 1230	5050 5050		9.5 109	70.7F 21.5C	8.5	189	--	--	--	--	--	--	--	--	-- 3AF	-- --				
	F3 1330.00			KLAMATH R AB OILLON C								FO5C1								
10/02/84 1150	5050 5050		10.8 114	62.6F 17.0C	8.1	247	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/02/84 1600	5050 5050		10.4 110	62.6F 17.0C	8.0	248	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/02/84 1940	5050 5050		10.0 103	60.8F 16.0C	8.0	245	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/03/84 0420	5050 5050		9.5 97	59.9F 15.5C	8.3	246	--	--	--	--	--	--	--	--	-- 3AF	-- --				
10/03/84 0835	5050 5050		9.8 99	59.4F 15.2C	8.0	246	--	--	--	--	--	--	--	--	-- 2AF	-- --				
02/26/85 1210	5050 5050		12.8 107	44.1F 6.7C	7.8	176	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/26/85 1610	5050 5050		9.9 83	44.1F 6.7C	7.7	175	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/26/85 2040	5050 5050		11.8 97	43.0F 6.1C	8.0	173	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/27/85 0315	5050 5050		12.2 96	39.9F 4.4C	8.1	167	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/27/85 0645	5050 5050		12.1 99	43.0F 6.1C	7.6 8.1	181 181	14 .70 38	9.0 .74 40	9.0 .39 21	--	76 1.52	--	3.0 .08	--	.0 6A	-- --		72 0	0.5 0.6	S
05/13/85 1245	5050 5050		10.4 101	56.0F 13.3C	7.9	153	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/13/85 1510	5050 5050		10.3 103	58.0F 14.4C	8.2	152	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/13/85 1925	5050 5050		10.1 102	59.0F 15.0C	8.1	153	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 0340	5050 5050		10.0 97	56.0F 13.3C	8.1	154	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 0750	5050 5050		10.0 97	56.0F 13.3C	8.1	152	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 1125	5050 5050		9.9 99	58.0F 14.4C	8.2	150	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 1510	5050 5050		10.5 108	60.8F 16.0C	8.1	151	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 1955	5050 5050		9.9 99	58.1F 14.5C	8.3	152	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/15/85 0400	5050 5050		10.7 103	55.0F 12.8C	8.2 8.0	148 152	13 .65 40	8.0 .66 41	7.0 .30 19	--	69 1.38	--	3.0 .08	--	.0 1A	-- --		66 0	0.4 0.5	S
05/15/85 0630	5050 5050		9.8 96	56.0F 13.3C	7.8	149	--	--	--	--	--	--	--	--	-- 2AF	-- --				

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. D	OO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	RES
	F3	1330.00		KLAMATH R AB DILLON C									FOSC1 CONTINUED							
05/15/85 1240	5050 5050		10.3 106	60.8F 16.0C	8.0	149	--	--	--	--	--	--	--	--	-- 2AF	-- --				
06/12/85 1210	5050 5050		9.5 115	75.2F 24.0C	8.3	192	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/12/85 1530	5050 5050		9.6 114	73.4F 23.0C	8.4	196	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/12/85 1845	5050 5050		8.7 102	72.5F 22.5C	8.3	196	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/13/85 0410	5050 5050		7.9 89	69.1F 20.6C	8.2	196	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/13/85 0730	5050 5050		8.4 97	70.7F 21.5C	8.0	195	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/13/85 1150	5050 5050		9.1 108	73.4F 23.0C	8.6	197	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/13/85 1520	5050 5050		9.5 113	74.3F 23.5C	8.6	196	--	--	--	--	--	--	--	--	-- 5AF	-- --				
08/13/85 1920	5050 5050		8.8 105	74.3F 23.5C	8.1	199	--	--	--	--	--	--	--	--	-- 5AF	-- --				
08/14/85 0340	5050 5050		8.1 92	69.8F 21.0C	8.4	200	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/14/85 0735	5050 5050		8.1 93	70.7F 21.5C	8.2	198	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/14/85 1145	5050 5050		9.5 116	76.1F 24.5C	8.5	198	--	--	--	--	--	--	--	--	-- 7AF	-- --				
08/20/85 1145	5050 5050		9.0 100	57.1F 19.5C	8.5	191	--	--	--	--	--	--	--	--	-- 3AF	-- --				
	F3	1333.00		KLAMATH R AB INDEPENDENCE CREEK									FOSC1							
10/01/84 1315	5050 5050		10.6 109	59.9F 15.5C	8.1	248	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/01/84 1715	5050 5050		10.1 104	59.9F 15.5C	8.1	247	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/01/84 2155	5050 5050		9.7 101	61.3F 16.3C	8.3	248	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/02/84 0540	5050 5050		9.5 98	59.0F 15.0C	8.2	249	--	--	--	--	--	--	--	--	-- 3AF	-- --				
10/02/84 0935	5050 5050		9.7 99	59.0F 15.0C	7.9	248	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/02/84 1355	5050 5050		10.5 110	61.5F 16.4C	8.1	245	--	--	--	--	--	--	--	--	-- 2AF	-- --				
02/25/85 1420	5050 5050		12.3 107	46.4F 8.0C	8.0	169	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/25/85 2210	5050 5050		12.3 103	44.1F 6.7C	8.0	167	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/26/85 0645	5050 5050		11.8 95	41.0F 5.0C	8.0	168	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/26/85 1030	5050 5050		12.4 101	42.1F 5.6C	7.9	168	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/26/85 1445	5050 5050		12.1 99	42.0F 5.6C	5.0 8.1	.71 178	15 .75 38	10 .82 42	9.0 .39 20	--	75 1.50	--	3.0 .08	--	.0 2A	--		78 4	0.4 0.6	S
03/25/85 1500	5050 5050		12.7 105	42.8F 6.0C	5.8	181	--	--	--	--	--	--	--	--	-- 3AF	-- --				
05/13/85 1325	5050 5050		10.8 107	57.0F 13.9C	8.2	154	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/13/85 1720	5050 5050		10.3 104	59.0F 15.0C	8.4	155	--	--	--	--	--	--	--	--	-- 2AF	-- --				

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. D	OO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	MILLIGRAMS PER LITER TDS SUM	TH NCH	SAR ASAR	RES
	F3	1333.00		KLAMATH R AB INDEPENDENCE CREEK								FOSC1 CONTINUED								
05/13/85 2020	5050 5050		13.0 99	57.0F 13.9C	8.2	154	--	--	--	--	--	--	--	--	--	-- ZAF	-- --			
05/14/85 0530	5050 5050		9.2 89	55.0F 12.8C	8.0	151	--	--	--	--	--	--	--	--	--	-- ZAF	-- --			
05/14/85 0940	5050 5050		10.3 100	55.0F 12.8C	8.0	151	--	--	--	--	--	--	--	--	--	-- ZAF	-- --			
05/14/85 1330	5050 5050		10.5 106	58.1F 14.5C	8.2	154	--	--	--	--	--	--	--	--	--	-- ZAF	-- --			
05/14/85 1805	5050 5050		10.4 106	59.0F 15.0C	8.1	151	--	--	--	--	--	--	--	--	--	-- ZAF	-- --			
05/14/85 2050	5050 5050		9.9 99	58.0F 14.4C	8.4 7.9	150 154	12 .60 38	8.0 .66 42	7.0 .30 19	--	70 1.40	--	3.0 .08	--	.0 1A	-- --	63 0	0.4 0.5		S
05/15/85 0800	5050 5050		9.0 87	55.0F 12.8C	7.7	151	--	--	--	--	--	--	--	--	--	-- ZAF	-- --			
05/15/85 1155	5050 5050		10.4 103	57.2F 14.0C	8.0	148	--	--	--	--	--	--	--	--	--	-- ZAF	-- --			
08/12/85 1740	5050 5050		9.5 112	72.5F 22.5C	8.5	196	--	--	--	--	--	--	--	--	--	-- 3AF	-- --			
08/12/85 2055	5050 5050		8.1 96	73.0F 22.8C	8.4	196	--	--	--	--	--	--	--	--	--	-- 3AF	-- --			
08/13/85 0540	5050 5050		8.0 92	69.8F 21.0C	8.2	198	--	--	--	--	--	--	--	--	--	-- 4AF	-- --			
08/13/85 0940	5050 5050		8.9 104	71.8F 22.0C	8.1	198	--	--	--	--	--	--	--	--	--	-- 5AF	-- --			
08/13/85 1355	5050 5050		10.0 120	73.9F 23.3C	8.6	198	--	--	--	--	--	--	--	--	--	-- 7AF	-- --			
08/13/85 1735	5050 5050		9.4 112	73.4F 23.0C	8.7	198	--	--	--	--	--	--	--	--	--	-- 8AF	-- --			
08/13/85 2135	5050 5050		8.0 96	73.9F 23.3C	8.6	197	--	--	--	--	--	--	--	--	--	-- 7AF	-- --			
08/14/85 0540	5050 5050		9.4 109	71.1F 21.7C	8.1	197	--	--	--	--	--	--	--	--	--	-- 7AF	-- --			
08/14/85 1135	5050 5050		9.4 112	73.4F 23.0C	8.3	200	--	--	--	--	--	--	--	--	--	-- 7AF	-- --			
08/14/85 1400	5050 5050		9.7 117	75.0F 23.9C	8.7	202	--	--	--	--	--	--	--	--	--	-- 7AF	-- --			
08/15/85 1855	5050 5050		8.8 106	74.3F 23.5C	8.5	199	--	--	--	--	--	--	--	--	--	-- 6AF	-- --			
08/20/85 1050	5050 5050		9.2 105	69.8F 21.0C	8.4	193	--	--	--	--	--	--	--	--	--	-- 3AF	-- --			
	F3	1336.00		KLAMATH R AB OAK FLAT CREEK								FOSC1								
10/01/84 1250	5050 5050		10.7 112	61.5F 16.4C	8.1	248	--	--	--	--	--	--	--	--	--	-- 2AF	-- --			
10/01/84 1655	5050 5050		10.7 113	62.1F 16.7C	9.3	246	--	--	--	--	--	--	--	--	--	-- 2AF	-- --			
10/01/84 2120	5050 5050		9.3 103	60.6F 16.0C	8.2	245	--	--	--	--	--	--	--	--	--	-- 1AF	-- --			
10/02/84 0515	5050 5050		9.2 94	59.0F 15.0C	8.2	245	--	--	--	--	--	--	--	--	--	-- 5AF	-- --			
10/02/84 0905	5050 5050		8.8 90	59.0F 15.0C	7.9	245	--	--	--	--	--	--	--	--	--	-- 4AF	-- --			
10/02/84 1335	5050 5050		10.5 108	60.1F 15.6C	8.2	246	--	--	--	--	--	--	--	--	--	-- 6AF	-- --			
10/03/84 1205	5050 5050		10.2 107	61.7F 16.5C	8.1	248	--	--	--	--	--	--	--	--	--	-- 7AF	-- --			

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.W. D	OO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	MILLIGRAMS PER LITER CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	RE*
	F3	1336.00		KLAMATH R AB OAR FLAT CREEK									FOSCI CONTINUED							
02/25/85 1400	5050 5050		11.7 102	46.4F 8.0C	8.1	186	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/25/85 1810	5050 5050		12.1 103	45.0F 7.2C	7.8	180	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/25/85 2140	5050 5050		11.9 100	44.1F 6.7C	8.1	185	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/26/85 0620	5050 5050		11.8 94	39.9F 4.4C	8.1	182	--	--	--	--	--	--	--	--	-- 5AF	-- --				
02/26/85 0950	5050 5050		12.3 101	42.1F 5.6C	7.9	181	--	--	--	--	--	--	--	--	-- 5AF	-- --				
02/26/85 1400	5050 5050		12.7 104	42.0F 5.6C	8.1 8.1	188 190	15 .75 37	10 .82 41	10 .44 22	--	80 1.60	--	3.0 .08	--	.1 3A	-- --		78 0	0.5 0.7	S
05/13/85 1305	5050 5050		10.6 103	57.0F 13.9C	8.2	162	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/13/85 1650	5050 5050		10.5 108	59.0F 15.0C	8.4	162	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/13/85 2000	5050 5050		10.2 103	58.0F 14.4C	8.2	161	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 0510	5050 5050		9.9 96	55.0F 12.8C	8.1	158	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 0910	5050 5050		10.1 99	56.0F 13.3C	8.0	158	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 1255	5050 5050		10.5 105	57.2F 14.0C	8.1	157	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 1725	5050 5050		10.7 110	59.9F 15.5C	8.0	158	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 2015	5050 5050		10.0 101	58.0F 14.4C	8.3 8.1	159 162	13 .65 39	8.0 .66 40	8.0 .35 21	--	72 1.44	--	3.0 .08	--	.2 1A	-- --		66 0	0.4 0.5	S
05/15/85 0520	5050 5050		9.5 93	55.0F 12.8C	7.8	155	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/15/85 1125	5050 5050		10.4 104	57.2F 14.0C	8.2	153	--	--	--	--	--	--	--	--	-- 2AF	-- --				
08/12/85 1710	5050 5050		9.3 113	75.2F 24.0C	8.7	195	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/12/85 2140	5050 5050		8.2 98	73.9F 23.3C	8.4	201	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/13/85 0515	5050 5050		8.3 95	69.8F 21.0C	8.2	200	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/13/85 0905	5050 5050		9.1 109	73.4F 23.0C	8.3	207	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/13/85 1329	5050 5050		9.2 109	73.0F 22.8C	8.6	202	--	--	--	--	--	--	--	--	-- 8AF	-- --				
08/13/85 1705	5050 5050		9.0 110	75.1F 24.5C	8.9	199	--	--	--	--	--	--	--	--	-- 8AF	-- --				
08/13/85 2110	5050 5050		8.1 98	75.0F 23.9C	9.0	197	--	--	--	--	--	--	--	--	-- 8AF	-- --				
08/14/85 0530	5050 5050		8.1 93	70.0F 21.1C	7.8	202	--	--	--	--	--	--	--	--	-- 8AF	-- --				
08/14/85 1040	5050 5050		8.7 102	71.6F 22.0C	8.3 8.3	202 206	14 .70 33	9.0 .74 35	15 .65 31	--	85 1.70	--	3.0 .14	--	.1 3A	-- --		72 0	0.8 1.0	S
08/14/85 1329	5050 5050		9.2 110	73.9F 23.3C	8.6	203	--	--	--	--	--	--	--	--	-- 8AF	-- --				
08/14/85 1915	5050 5050		8.6 106	77.0F 25.0C	5.5	199	--	--	--	--	--	--	--	--	-- 7AF	-- --				

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.W. O	OO SAT	TEMP	FIELD pH	FIELD EC	MILLIGRAMS PER LITER MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER CA	MG	NA	K	PERCENT REACTANCE VALUE CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER P TURB	F SIO2	TDS SUM	TH NCH	SAR 4SAR	REM
	F3	1336.00		KLAMATH R AB OAK FLAT CREEK								FOSC1 CONTINUED								
06/20/85	5050		6.8	69.8F	8.6	193	--	--	--	--	--	--	--	--	--	--				
1025	5050		101	21.0C											4AF	--				
	F3	1395.00		KLAMATH R AB HAPPY CAMP								FOSC2								
10/01/84	5050		11.3	62.1F	8.3	257	--	--	--	--	--	--	--	--	--	--				
1205	5050		120	16.7C											2AF	--				
10/01/84	5050		11.0	62.1F	9.3	253	--	--	--	--	--	--	--	--	--	--				
1625	5050		117	16.7C											2AF	--				
10/01/84	5050		9.4	60.8F	8.4	254	--	--	--	--	--	--	--	--	--	--				
2050	5050		98	16.0C											2AF	--				
10/02/84	5050		8.8	60.1F	9.1	252	--	--	--	--	--	--	--	--	--	--				
0450	5050		91	15.6C											3AF	--				
10/02/84	5050		9.4	59.0F	8.0	252	--	--	--	--	--	--	--	--	--	--				
0820	5050		98	15.0C											3AF	--				
10/02/84	5050		11.8	60.1F	8.3	252	16	10	22	--	93	--	8.0	--	.0	--		81	1.1	
1310	5050		123	15.6C	9.0	254	.80	.82	.96		1.86		.17		6AF	--		0	1.5	
							31	32	37											5
02/25/85	5050		13.6	46.4F	8.3	194	--	--	--	--	--	--	--	--	--	--				
1300	5050		121	8.0C											4AF	--				
02/25/85	5050		11.9	45.0F	8.0	197	--	--	--	--	--	--	--	--	--	--				
1725	5050		102	7.2C											4AF	--				
02/25/85	5050		11.5	45.0F	7.9	201	--	--	--	--	--	--	--	--	--	--				
2115	5050		99	7.2C											4AF	--				
02/26/85	5050		11.2	40.5F	8.0	194	--	--	--	--	--	--	--	--	--	--				
0545	5050		90	4.7C											5AF	--				
02/26/85	5050		12.7	42.1F	8.1	193	--	--	--	--	--	--	--	--	--	--				
0920	5050		105	5.6C											6AF	--				
02/26/85	5050		13.1	41.5F	8.2	196	--	--	--	--	--	--	--	--	--	--				
1320	5050		107	5.3C											6AF	--				
03/06/85	5050		13.1	41.9F	8.6	204	--	--	--	--	--	--	--	--	--	--				
0855	5050		108	5.5C											4AF	--				
05/13/85	5050		11.0	62.0F	8.4	170	--	--	--	--	--	--	--	--	--	--				
1150	5050		117	16.7C											3AF	--				
05/13/85	5050		10.8	59.0F	8.2	170	--	--	--	--	--	--	--	--	--	--				
1600	5050		111	15.0C											2AF	--				
05/13/85	5050		9.9	60.1F	7.9	169	--	--	--	--	--	--	--	--	--	--				
1930	5050		103	15.6C											2AF	--				
05/14/85	5050		9.6	56.0F	8.4	168	--	--	--	--	--	--	--	--	--	--				
0440	5050		95	13.3C											3AF	--				
05/14/85	5050		9.8	58.0F	8.2	169	--	--	--	--	--	--	--	--	--	--				
0830	5050		100	14.4C											3AF	--				
05/14/85	5050		10.8	59.9F	8.2	168	--	--	--	--	--	--	--	--	--	--				
1215	5050		112	15.5C											3AF	--				
05/14/85	5050		10.8	60.8F	8.4	170	--	--	--	--	--	--	--	--	--	--				
1640	5050		113	16.0C											2AF	--				
05/14/85	5050		10.0	59.0F	8.0	168	14	8.0	8.0	--	76	--	3.0	--	.5	--		68	0.4	
1940	5050		103	15.0C	8.2	170	.70	.66	.35		1.52		.08		2A	--		0	0.5	
							41	39	20											5
05/15/85	5050		9.9	56.0F	7.9	160	--	--	--	--	--	--	--	--	--	--				
0440	5050		99	13.3C											2AF	--				
05/15/85	5050		10.5	59.0F	8.4	167	--	--	--	--	--	--	--	--	--	--				
1045	5050		108	15.0C											2AF	--				
05/12/85	5050		11.4	75.2F	8.7	201	--	--	--	--	--	--	--	--	--	--				
1035	5050		140	24.0C											4AF	--				
05/12/85	5050		9.8	72.0F	8.4	206	--	--	--	--	--	--	--	--	--	--				
2210	5050		114	22.2C											5AF	--				
06/13/85	5050		7.1	69.8F	5.4	208	--	--	--	--	--	--	--	--	--	--				
0440	5050		82	21.0C											7AF	--				

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER CA	MG	NA	K	MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B	F SIO2	TDS SUM	TH NCH	SAR ASAR	RES
	F3 1395.00			KLAMATH R AB HAPPY CAMP								F05C2 CONTINUED								
08/13/85 0840	5050 5050		6.8 104	71.6F 22.0C	8.4	208	--	--	--	--	--	--	--	--	--	--	--	--	--	
															8AF	--				
08/13/85 1240	5050 5050		10.3 124	73.9F 23.3C	8.6	205	--	--	--	--	--	--	--	--	--	--	--	--	--	
															8AF	--				
08/13/85 1630	5050 5050		10.9 136	77.0F 25.0C	9.0	200	--	--	--	--	--	--	--	--	--	--	--	--	--	
															8AF	--				
08/13/85 2033	5050 5050		8.2 99	73.9F 23.3C	8.8	203	--	--	--	--	--	--	--	--	--	--	--	--	--	
															8AF	--				
08/14/85 0500	5050 5050		6.8 80	71.1F 21.7C	8.2	203	--	--	--	--	--	--	--	--	--	--	--	--	--	
															7AF	--				
08/14/85 0935	5050 5050		9.2 111	73.4F 23.0C	8.3	201	--	--	--	--	--	--	--	--	--	--	--	--	--	
															8AF	--				
08/14/85 1250	5050 5050		10.2 125	75.0F 23.9C	8.8	202	--	--	--	--	--	--	--	--	--	--	--	--	--	
															7AF	--				
08/14/85 1725	5050 5050		10.1 126	77.0F 25.0C	8.6	201	--	--	--	--	--	--	--	--	--	--	--	--	--	
															8AF	--				
08/20/85 0955	5050 5050		8.8 102	69.8F 21.0C	8.5	194	--	--	--	--	--	--	--	--	--	--	--	--	--	
															3AF	--				
	F3 1417.00			THOMPSON C NR HAPPY CAMP								F05C2								
10/02/84 1230	5050 5050	10E	10.1 100	56.0F 13.3C	7.8	133	--	--	--	--	--	--	--	--	--	--	--	--	--	
															2AF	--				
02/26/85 1045	5050 5050	35E	10.3 85	42.0F 5.6C	7.4	87	--	--	--	--	--	--	--	--	--	--	--	--	--	
															1AF	--				
05/16/85 0900	5050 5050	100E	11.5 105	49.1F 9.5C	7.5 7.8	87 89	7.0 .35 37	6.0 .49 32	2.0 .09 10	.5 .01 1	43 .86 95	1.0 .02 2	1.0 .03 3	.0 .00 0	.0	-- --	60 43	42 0	0.1 0.1	T
08/15/85 1410	5050 5050	19E	9.1 104	68.0F 20.0C	8.0	124	--	--	--	--	--	--	--	--	--	--	--	--	--	
															0AF	--				
	F3 1425.00			FT GOFF C NR SEIAD VALLEY								F05C2								
10/02/84 1245	5050 5050	10E	10.1 98	54.0F 12.2C	7.5 8.0	125 122	9.0 .45 35	9.0 .74 58	2.0 .09 7	--	58 1.16	--	1.0 .03	--	.0 14	-- --		60 2	0.1 0.1	S
02/26/85 1030	5050 5050	19E	11.2 93	42.0F 5.6C	7.3	75	--	--	--	--	--	--	--	--	--	--	--	--	--	
															5AF	--				S
05/16/85 0920	5050 5050	20E	11.1 100	48.2F 9.0C	7.5	78	--	--	--	--	--	--	--	--	--	--	--	--	--	
															0AF	--				S
08/19/85 1420	5050 5050	3E	9.2 102	65.3F 18.5C	7.8	112	--	--	--	--	--	--	--	--	--	--	--	--	--	
															0AF	--				S
	F3 1430.00			KLAMATH R NR SEIAD VLY								F05C2								
10/01/84 1130	5050 5050		10.5 112	62.1F 16.7C	8.1	256	--	--	--	--	--	--	--	--	--	--	--	--	--	
															2AF	--				S
10/01/84 1600	5050 5050		10.4 111	62.1F 16.7C	8.1	252	--	--	--	--	--	--	--	--	--	--	--	--	--	
															3AF	--				S
10/01/84 2015	5050 5050		9.4 99	60.8F 16.0C	8.1	255	--	--	--	--	--	--	--	--	--	--	--	--	--	
															2AF	--				S
10/02/84 0420	5050 5050		9.0 94	60.1F 15.6C	8.2	255	--	--	--	--	--	--	--	--	--	--	--	--	--	
															2AF	--				S
10/02/84 0755	5050 5050		9.5 97	57.9F 14.4C	8.1	256	--	--	--	--	--	--	--	--	--	--	--	--	--	
															5AF	--				S
10/02/84 1230	5050 5050		10.5 112	62.1F 16.7C	8.1	255	--	--	--	--	--	--	--	--	--	--	--	--	--	
															4AF	--				S
10/03/84 1300	5050 5050	2100	11.1 119	62.1F 16.7C	8.2 8.0	256 256	16 .80 31	10 .82 32	22 .96 37	--	95 1.90	--	6.0 .17	--	.1 2AF	-- --		61 0	1.1 1.5	S
11/26/84 1439	5050 5050	7220	13.2 108	41.0F 5.0C	7.7	192	--	--	--	--	--	--	--	--	--	--	--	--	--	
															8AF	--				
12/17/84 1545	5050 5050	5540	14.0 113	40.1F 4.5C	7.5 7.5	213 213	15 .75 35	9.0 .74 35	15 .65 30	--	82 1.64	--	5.0 .14	--	.0 10A	-- --		74 0	0.8 1.0	S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. J	DO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER CA	MG	NA	K	MILLIEQUIVALENTS PER LITER CACO3	PERCENT REACTANCE VALUE SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	RES
	F3	1430.00		KLAMATH R NR SEIAD VLY								FOSC2 CONTINUED								
01/30/85 1405	5050 5050	3850	13.9 110	39.2F 4.0C	7.6	205	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/25/85 1230	5050 5050		12.2 105	45.0F 7.2C	8.2	200	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/25/85 1650	5050 5050		12.3 105	44.4F 6.9C	8.0	199	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/25/85 2025	5050 5050		12.1 104	44.4F 6.9C	8.2	208	--	--	--	--	--	--	--	--	-- 5AF	-- --				
02/26/85 0515	5050 5050		11.5 92	39.9F 4.4C	8.0	199	--	--	--	--	--	--	--	--	-- 6AF	-- --				
02/26/85 0855	5050 5050		12.0 99	42.1F 5.6C	7.9	195	--	--	--	--	--	--	--	--	-- 5AF	-- --				
02/26/85 1255	5050 5050	3730	12.3 100	41.0F 5.0C	8.1	196	--	--	--	--	--	--	--	--	-- 5AF	-- --				
03/26/85 0945	5050 5050		12.3 102	41.9F 5.5C	8.5	210	--	--	--	--	--	--	--	--	-- 5AF	-- --				
03/12/85 1530	5050 5050	3680	12.2 109	47.3F 8.5C	6.4	222	--	--	--	--	--	--	--	--	-- 5AF	-- --				
04/16/85 1340	5050 5050	8950	10.0 99	55.4F 13.0C	7.7	141	--	--	--	--	--	--	--	--	-- 8AF	-- --				
05/13/85 1125	5050 5050		10.9 110	57.0F 13.9C	8.4	171	--	--	--	--	--	--	--	--	-- 3AF	-- --				
05/13/85 1530	5050 5050		10.9 114	59.9F 15.5C	8.4	169	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/13/85 1905	5050 5050		10.1 104	59.0F 15.0C	8.3	171	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 0415	5050 5050		9.5 93	55.0F 12.8C	8.2	171	--	--	--	--	--	--	--	--	-- 3AF	-- --				
05/14/85 0800	5050 5050		10.1 99	55.0F 12.8C	7.9	171	--	--	--	--	--	--	--	--	-- 3AF	-- --				
05/14/85 1140	5050 5050		11.0 113	59.0F 15.0C	8.4	170	--	--	--	--	--	--	--	--	-- 3AF	-- --				
05/14/85 1600	5050 5050		11.0 116	60.8F 16.0C	8.4	166	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 1910	5050 5050		10.3 103	59.0F 15.0C	8.2 8.2	165 170	14 .70 39	8.0 .66 37	9.0 .39 22	1.3 .03 2	75 1.50 88	6.0 .12 7	3.0 .08 5	.0 .00 0	.1	-- --	112 86	88 0	0.5 0.6	T
05/15/85 0415	5050 5050		9.6 96	56.0F 13.3C	8.0	170	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/15/85 0805	5050 5050		10.7 108	57.2F 14.0C	8.2	168	--	--	--	--	--	--	--	--	-- 2AF	-- --				
06/13/85 1310	5050 5050	2170	9.9 117	71.6F 22.0C	8.3	169	--	--	--	--	--	--	--	--	-- 3AF	-- --				
07/09/85 1330	5050 5050	1050	10.1 123	74.3F 23.5C	8.4	161	--	--	--	--	--	--	--	--	-- 1AF	-- --				
08/12/85 1610	5050 5050		10.3 126	74.3F 23.5C	8.7	207	--	--	--	--	--	--	--	--	-- 7AF	-- --				
08/12/85 2245	5050 5050		7.6 91	72.0F 22.2C	8.4	204	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/13/85 0405	5050 5050		7.3 87	69.8F 21.0C	8.4	207	--	--	--	--	--	--	--	--	-- 7AF	-- --				
08/13/85 0815	5050 5050		8.7 101	69.8F 21.0C	8.1	208	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/13/85 1205	5050 5050		9.7 114	72.5F 22.5C	8.4	205	--	--	--	--	--	--	--	--	-- 7AF	-- --				

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TOS SUM	TH NCH	SAR ASAR	RES
	F3 1430.00			KLAMATH R NR SEIAD VLY								FOSC2 CONTINUED								
08/13/85 1600	5050 5050		8.9 111	76.1F 24.5C	8.8	206	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/13/85 2000	5050 5050		8.0 97	73.9F 23.3C	8.7	201	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/14/85 0430	5050 5050		7.5 83	64.9F 18.3C	8.0	202	--	--	--	--	--	--	--	--	-- 5AF	-- --				
08/14/85 0835	5050 5050		8.2 96	70.7F 21.5C	7.9 8.3	203 206	14 .70 33	9.0 .74 35	15 .65 31	--	84 1.68	--	5.0 .14	--	.1 3A	-- --		72 0	0.8 1.0	5
08/14/85 1220	5050 5050		9.5 115	73.9F 23.3C	8.3	205	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/14/85 1645	5050 5050		9.2 115	77.0F 25.0C	8.4	208	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/20/85 0920	5050 5050	1190	8.6 98	68.0F 20.0C	8.6	198	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/10/85 1330	5050 5050	1910	9.4 104	65.3F 18.5C	8.1	219	--	--	--	--	--	--	--	--	-- 3AF	-- --				
	F3 1460.00			KLAMATH R A SARAH TOTTEN CAMPGROUN								FOSC3								
10/01/84 1100	5050 5050		10.3 108	60.1F 15.6C	8.1	253	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/01/84 1540	5050 5050		10.4 109	60.1F 15.6C	8.2	252	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/01/84 1945	5050 5050		9.3 100	62.1F 16.7C	8.3	253	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/02/84 0350	5050 5050		9.0 93	59.0F 15.0C	8.1	258	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/02/84 0735	5050 5050		9.0 93	59.0F 15.0C	8.1	255	--	--	--	--	--	--	--	--	-- 2AF	-- --				
10/02/84 1130	5050 5050		10.0 106	60.4F 15.8C	8.1	257	--	--	--	--	--	--	--	--	-- 2AF	-- --				
02/25/85 1230	5050 5050		12.2 107	45.5F 7.5C	8.1	216	--	--	--	--	--	--	--	--	-- 5AF	-- --				
02/25/85 1615	5050 5050		12.9 111	44.1F 6.7C	8.1	207	--	--	--	--	--	--	--	--	-- 5AF	-- --				
02/25/85 2000	5050 5050		11.0 95	44.4F 6.9C	8.0	219	--	--	--	--	--	--	--	--	-- 6AF	-- --				
02/26/85 0450	5050 5050		9.4 78	39.9F 4.4C	8.1	209	--	--	--	--	--	--	--	--	-- 5AF	-- --				
02/26/85 0830	5050 5050		11.9 98	41.0F 5.0C	7.9	203	--	--	--	--	--	--	--	--	-- 5AF	-- --				
02/26/85 1225	5050 5050		12.1 99	41.0F 5.0C	8.2 8.1	205 217	18 .90 39	10 .82 36	13 .57 25	--	89 1.78	--	4.0 .11	--	.1 4A	-- --		86 0	0.6 0.9	5
05/13/85 1100	5050 5050		10.5 106	56.5F 13.6C	8.4	170	--	--	--	--	--	--	--	--	-- 3AF	-- --				
05/13/85 1510	5050 5050		10.7 116	60.8F 16.0C	8.3	166	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/13/85 1840	5050 5050		10.1 105	59.0F 15.0C	8.1	176	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 0350	5050 5050		9.5 94	55.0F 12.8C	8.2	166	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/14/85 0730	5050 5050		9.9 97	54.6F 12.2C	7.9	169	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/14/85 1105	5050 5050		11.6 113	58.1F 14.5C	8.4	183	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/14/85 1530	5050 5050		11.5 122	63.8F 18.0C	8.4	171	--	--	--	--	--	--	--	--	-- 2AF	-- --				

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	MILLIGRAMS PER LITER CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	REM
	F3 1460.00			KLAMATH R A SARAH TOTTEN CAMPGROUN								FO5C3 CONTINUED								
03/14/85 1843	5050 5050		10.0 104	59.0F 15.0C	8.2 8.3	188 175	14 .70 40	8.0 .66 38	9.0 .39 22	--	78 1.56	--	3.0 .08	--	1.8 2A	-- --		68 0	0.5 0.6	S
05/15/85 0349	5050 5050		9.3 91	54.0F 12.2C	8.2	168	--	--	--	--	--	--	--	--	-- 2AF	-- --				
05/15/85 0915	5050 5050		10.6 103	55.4F 13.0C	8.2	169	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/12/85 1340	5050 5050		10.1 126	76.1F 24.5C	8.8	203	--	--	--	--	--	--	--	--	-- 5AF	-- --				
08/12/85 2310	5050 5050		7.5 90	72.0F 22.2C	8.4	210	--	--	--	--	--	--	--	--	-- 5AF	-- --				
08/13/85 0349	5050 5050		7.6 87	68.0F 20.0C	8.3	207	--	--	--	--	--	--	--	--	-- 7AF	-- --				
08/13/85 0730	5050 5050		9.0 103	68.0F 20.0C	8.1	237	--	--	--	--	--	--	--	--	-- 5AF	-- --				
08/13/85 1135	5050 5050		9.2 109	71.1F 21.7C	8.4	206	--	--	--	--	--	--	--	--	-- 6AF	-- --				
08/13/85 1539	5050 5050		9.1 114	76.1F 24.5C	8.8	215	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/13/85 1925	5050 5050		8.0 99	75.0F 23.9C	8.6	199	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/14/85 0400	5050 5050		7.9 87	69.1F 20.6C	7.8	203	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/14/85 0755	5050 5050		8.1 97	71.6F 22.0C	7.9	204	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/14/85 1150	5050 5050		9.2 111	73.0F 22.8C	8.3	209	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/14/85 1619	5050 5050		9.9 125	77.0F 25.0C	8.5	216	--	--	--	--	--	--	--	--	-- 4AF	-- --				
08/20/85 0850	5050 5050		8.5 98	68.0F 20.0C	8.6	197	--	--	--	--	--	--	--	--	-- 3AF	-- --				
	F3 1470.00			KLAMATH R AB HAMBURG RES SITE								FO5C3								
10/23/84 1345	5050 5050		10.1 101	55.4F 13.0C	7.5	193	--	--	--	--	--	--	--	--	-- 7AF	-- --				
11/26/84 1515	5050 5050		12.9 106	41.0F 5.0C	7.7	191	--	--	--	--	--	--	--	--	-- 8AF	-- --				
12/17/84 1625	5050 5050		12.3 99	39.2F 4.0C	7.5	209	--	--	--	--	--	--	--	--	-- 8AF	-- --				
01/08/85 1435	5050 5050		12.6 101	39.2F 4.0C	7.9	203	--	--	--	--	--	--	--	--	-- 4AF	-- --				
02/27/85 1030	5050 5050		12.2 98	39.2F 4.0C	7.9	217	--	--	--	--	--	--	--	--	-- 6AF	-- --				
03/12/85 1605	5050 5050		10.0 69	46.4F 8.0C	8.2	225	--	--	--	--	--	--	--	--	-- 6AF	-- --				
04/16/85 1430	5050 5050		9.8 102	59.0F 15.0C	7.6 8.8	155 150	11 .55 36	5.0 .49 32	11 .49 32	--	62 1.24	--	2.0 .06	--	.1 5A	-- --		52 0	0.7 0.7	S
05/08/85 1443	5050 5050		11.2 114	57.2F 14.0C	8.3	173	--	--	--	--	--	--	--	--	-- 4AF	-- --				S
06/13/85 1243	5050 5050		9.9 116	70.7F 21.5C	8.3	183	--	--	--	--	--	--	--	--	-- 3AF	-- --				S
07/09/85 1255	5050 5050		10.1 123	73.4F 23.0C	8.4	215	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/20/85 0830	5050 5050		7.8 90	68.0F 20.0C	8.6	200	--	--	--	--	--	--	--	--	-- 3AF	-- --				S
09/10/85 1300	5050 5050		9.5 105	64.4F 18.0C	8.1	241	--	--	--	--	--	--	--	--	-- 4AF	-- --				S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OD SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TOS SUM	TH MCH	SAR ASAR	REM
							CA	MG	NA	K										
	F3	1575.00		KLAMATH R BELOW SHASTA R								F05C4								
08/20/85 0740	5050 5050		7.9 91	67.1F 19.5C	8.6	195	--	--	--	--	--	--	--	--	--	3AF	--			S
	F3	1585.00		KLAMATH R A R COLLIER REST STOP								F05C5								
08/20/85 0720	5050 5050		7.3 85	67.1F 19.5C	8.6	174	--	--	--	--	--	--	--	--	--	3AF	--			S
	F3	1599.01		KLAMATH R BL IRON GT DM								F05C6								
10/23/84 1245	5050 5050	4320	9.6 95	53.6F 12.0C	7.4	167	--	--	--	--	--	--	--	--	--	7AF	--			S
11/26/84 1550	5050 5050	4260	12.5 105	41.0F 5.0C	7.3	166	--	--	--	--	--	--	--	--	--	9AF	--			S
12/18/84 1010	5050 5050	3300	13.4 107	37.4F 3.0C	7.5 7.6	177 176	11 .55 32	6.0 .49 28	16 .70 40	--	62 1.24	--	4.0 .11	--	.0 10A	--		92 0	1.0 1.0	S
01/08/85 1530	5050 5050	2790	13.5 107	37.4F 3.0C	7.4	173	--	--	--	--	--	--	--	--	--	6AF	--			S
02/25/85 1030	5050 5050	1800	11.3 92	39.2F 4.0C	7.6	166	--	--	--	--	--	--	--	--	--	7AF	--			S
03/12/85 1220	5050 5050	2310	11.3 100	44.6F 7.0C	7.7	196	--	--	--	--	--	--	--	--	--	6AF	--			S
04/16/85 1145	5050 5050	4990	9.7 103	59.0F 15.0C	7.6	138	--	--	--	--	--	--	--	--	--	4AF	--			S
05/08/85 1345	5050 5050	1770	10.5 114	60.8F 16.0C	8.1 8.4	153 150	10 .50 35	5.0 .41 29	12 .52 36	--	60 1.20	--	3.0 .08	--	.2 4A	--		46 0	0.6 0.8	S
05/13/85 1120	5050 5050	902	10.7 121	64.4F 18.0C	8.4	166	--	--	--	--	--	--	--	--	--	3AF	--			S
07/09/85 1215	5050 5050	718	10.5 123	68.0F 20.0C	8.4	214	--	--	--	--	--	--	--	--	--	2AF	--			S
08/20/85 0640	5050 5050		7.5 90	69.8F 21.0C	8.6	170	--	--	--	--	--	--	--	--	--	3AF	--			S
08/20/85 0655	5050 5050	1010	7.2 86	69.8F 21.0C	8.6	171	--	--	--	--	--	--	--	--	--	3AF	--			S
09/10/85 1200	5050 5050	1810	7.0 79	64.4F 18.0C	7.8	199	--	--	--	--	--	--	--	--	--	3AF	--			S
	F3	2260.00		DILLON C NR SOMESBAR								F05C1								
10/02/84 1140	5050 5050	20E	10.8 108	58.1F 14.5C	7.7	123	--	--	--	--	--	--	--	--	--	1AF	--			S
10/02/84 1555	5050 5050		10.5 105	59.1F 14.5C	7.7	121	--	--	--	--	--	--	--	--	--	1AF	--			S
10/02/84 1940	5050 5050		10.2 99	55.4F 13.0C	7.8	122	--	--	--	--	--	--	--	--	--	1AF	--			S
10/03/84 0425	5050 5050		10.1 96	53.6F 12.0C	7.7	123	--	--	--	--	--	--	--	--	--	1AF	--			S
10/03/84 0830	5050 5050	20E	10.6 114	62.6F 17.0C	7.5	123	--	--	--	--	--	--	--	--	--	1AF	--			S
02/26/85 1215	5050 5050		12.6 102	42.1F 5.6C	7.3	74	--	--	--	--	--	--	--	--	--	2AF	--			S
02/26/85 1510	5050 5050		12.0 99	43.0F 6.1C	7.2	72	--	--	--	--	--	--	--	--	--	1AF	--			S
02/26/85 2040	5050 5050		12.2 100	43.0F 6.1C	7.2	71	--	--	--	--	--	--	--	--	--	1AF	--			S
02/27/85 0525	5050 5050		12.4 99	40.5F 4.7C	7.4	69	--	--	--	--	--	--	--	--	--	1AF	--			S
02/27/85 0845	5050 5050	175E	12.7 102	41.5F 5.3C	7.2	73	--	--	--	--	--	--	--	--	--	1AF	--			S
05/13/85 1245	5050 5050		10.7 95	51.1F 10.6C	7.6	74	--	--	--	--	--	--	--	--	--	1AF	--			S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.W. O	OD SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TUAB	F SIO2	TDS SUM	TH MCH	SAR ASAR	REM
	F3	2260.00		OILLON C WR SOMESBAR								FOSC1 CONTINUED								
05/13/85 1505	5050 5050		10.8 102	53.6F 12.0C	7.7	73	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/13/85 1830	5050 5050		10.9 101	51.8F 11.0C	7.4	72	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/14/85 0340	5050 5050		10.8 97	49.0F 9.4C	7.4	75	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/14/85 0755	5050 5050		11.0 100	50.0F 10.0C	7.5	72	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/14/85 1130	5050 5050		11.4 106	51.6F 11.0C	7.4	71	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/14/85 1520	5050 5050		10.6 103	55.8F 13.2C	7.5	71	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/14/85 2005	5050 5050		10.5 97	51.8F 11.0C	7.6	70	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/15/85 0405	5050 5050		11.1 97	47.0F 8.3C	7.6 8.0	75 72	7.0 .35 51	3.0 .25 36	2.0 .09 13	--	32 .54	--	1.0 .03	--	.0 04	-- --		30 0	0.2 0.1	S
05/15/85 0630	5050 5050		10.0 87	47.0F 8.3C	7.6	72	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/15/85 1245	5050 5050		11.0 104	53.6F 12.0C	7.4	73	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/12/85 1200	5050 5050		9.7 108	67.1F 19.5C	8.4	115	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/12/85 1540	5050 5050		8.9 102	69.8F 21.0C	7.8	117	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/12/85 1840	5050 5050		8.7 98	68.0F 20.0C	7.8	114	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/13/85 0400	5050 5050		8.9 94	63.0F 17.2C	7.6	116	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/13/85 0740	5050 5050		9.7 103	63.5F 17.5C	7.6	120	--	--	--	--	--	--	--	--	-- 2AF	-- --				S
08/13/85 1140	5050 5050		9.4 103	65.2F 19.0C	7.9	119	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/13/85 1510	5050 5050		9.4 104	71.6F 22.0C	8.3	118	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/13/85 1915	5050 5050		9.4 105	68.0F 20.0C	7.6	116	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/14/85 0335	5050 5050		9.0 97	64.4F 18.0C	7.6	117	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
08/14/85 0740	5050 5050		9.5 108	68.9F 20.5C	7.7 8.2	117 114	13 .65 57	5.0 .41 36	2.0 .09 8	--	50 1.00	--	1.0 .03	--	.0 04	-- --		53 3	0.1 0.1	S
08/14/85 1135	5050 5050		9.4 106	63.9F 20.5C	7.9	117	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
	F3	2264.00		AUBREY C WR SOMES WAR								FOSC1								
08/15/85 1125	5050 5050	3E	9.7 100	60.8F 16.0C	7.5 8.2	110 112	13 .65 61	3.0 .25 21	4.0 .17 16	--	45 .90	--	1.0 .03	--	.1 04	-- --		45 0	0.3 0.2	S
	F3	2265.00		ELLIOT C WR SOMESBAR								FOSC1								
08/15/85 1140	5050 5050	2E	9.5 97	59.0F 15.0C	7.4 8.1	89 91	10 .50 57	3.0 .25 28	3.0 .13 15	--	38 .76	--	1.0 .03	--	.0 04	-- --		38 0	0.2 0.2	S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	DO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER CA	MG	NA	K	MILLIEQUIVALENTS PER LITER PERCENT REACIANCE VALUE CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	RES
	F3 2270.00			SWILLUP C NR SONESBAR								F05C1								
09/15/85 1550	5050 5050	15E	11.0 105	53.6F 12.0C	7.4	105	--	--	--	--	--	--	--	--	-- OAF	-- --				
08/15/85 1150	5050 5050	4E	9.8 102	60.8F 16.0C	7.5 8.2	132 138	13 .65 45	8.0 .66 46	3.0 .13 9	--	99 1.18	--	1.0 .03	--	.1 0A	-- --		66 7	0.2 0.2	
	F3 2299.00			INDIAN C NR HAPPY CAMP								F05C2								
10/02/84 1750	5050 5050		9.4 99	60.8F 16.0C	7.8	172	--	--	--	--	--	--	--	--	-- 3AF	-- --				
02/26/85 1305	5050 5050	160E	11.2 92	42.0F 5.6C	7.3	112	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F3 2303.00			INDIAN C BL MILLPOND								F05C2								
03/06/85 0835	5050 5050		13.0 103	39.2F 4.0C	8.4	122	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F3 2304.00			INDIAN C EF A MD								F05C2								
10/02/84 1555	5050 5050	6E	10.3 102	55.4F 13.0C	7.6	123	--	--	--	--	--	--	--	--	-- 1AF	-- --				
02/26/85 1245	5050 5050	30E	11.2 92	41.0F 5.0C	7.4	91	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F3 2305.00			INDIAN C A SF INDIAN C BR								F05C2								
10/02/84 1730	5050 5050		9.5 95	56.3F 13.5C	7.5	171	--	--	--	--	--	--	--	--	-- 1AF	-- --				
02/26/85 1225	5050 5050	40E	10.9 91	42.0F 5.6C	7.5	123	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F3 2306.00			INDIAN C SF A BR								F05C2								
10/02/84 1700	5050 5050		9.7 101	59.0F 15.0C	7.6	166	--	--	--	--	--	--	--	--	-- 1AF	-- --				
02/26/85 1210	5050 5050		11.0 91	41.0F 5.0C	7.4	97	--	--	--	--	--	--	--	--	-- 1AF	-- --				
03/06/85 0830	5050 5050		12.6 100	38.3F 3.5C	8.4	93	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F3 2315.00			CLEAR C NR HAPPY CAMP								F05C1								
10/01/84 1300	5050 5050		10.8 108	57.2F 14.0C	7.9	133	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/01/84 1705	5050 5050		10.3 101	55.9F 13.3C	7.9	133	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/01/84 2140	5050 5050		10.1 99	55.4F 13.0C	8.0	133	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/02/84 0530	5050 5050		10.2 95	52.0F 11.1C	7.8	133	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/02/84 0920	5050 5050		10.8 102	53.1F 11.7C	7.7	134	--	--	--	--	--	--	--	--	-- 1AF	-- --				
10/02/84 1345	5050 5050	45E	10.8 106	55.9F 13.3C	7.9	133	--	--	--	--	--	--	--	--	-- 2AF	-- --				
02/25/85 1410	5050 5050		12.8 106	42.8F 6.0C	7.5	79	--	--	--	--	--	--	--	--	-- 1AF	-- --				
02/25/85 1840	5050 5050		12.1 99	42.1F 5.6C	7.6	77	--	--	--	--	--	--	--	--	-- 1AF	-- --				
02/25/85 2155	5050 5050		12.2 100	42.1F 5.6C	7.5	81	--	--	--	--	--	--	--	--	-- 2AF	-- --				
02/26/85 0630	5050 5050		12.0 94	39.0F 3.9C	7.6	78	--	--	--	--	--	--	--	--	-- 1AF	-- --				
02/26/85 1005	5050 5050		12.3 96	39.9F 4.4C	7.4	79	--	--	--	--	--	--	--	--	-- 1AF	-- --				
02/26/85 1415	5050 5050		11.6 94	39.9F 4.4C	7.5	81	--	--	--	--	--	--	--	--	-- 1AF	-- --				

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER					REM
							CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	
	F3	2315.00		CLEAR C NR HAPPY CAMP								FO5C1 CONTINUED								
05/13/85	5050		11.9	51.1F	7.7	81	--	--	--	--	--	--	--	--	--	--				
1310	5050		102	10.6C											1AF	--				
05/13/85	5050		10.8	52.7F	7.6	81	--	--	--	--	--	--	--	--	--	--				
1705	5050		102	11.5C											1AF	--				
05/13/85	5050		13.7	51.1F	7.6	80	--	--	--	--	--	--	--	--	--	--				
2010	5050		99	10.6C											1AF	--				
05/14/85	5050		10.9	48.0F	7.3	80	--	--	--	--	--	--	--	--	--	--				
0520	5050		97	8.9C											1AF	--				
05/14/85	5050		11.4	49.0F	7.6	77	--	--	--	--	--	--	--	--	--	--				
0920	5050		103	9.4C											1AF	--				
05/14/85	5050		11.1	52.7F	7.6	78	--	--	--	--	--	--	--	--	--	--				
1315	5050		105	11.5C											1AF	--				
05/14/85	5050		10.8	51.8F	7.6	77	--	--	--	--	--	--	--	--	--	--				
1745	5050		101	11.0C											1AF	--				
05/14/85	5050		10.1	52.0F	7.2	77	4.0	7.0	1.0	--	37	--	1.0	--	.0	--		39	0.1	
2030	5050		95	11.1C	8.1	78	.20	.58	.04		.74		.03		0A	--		2	0.1	
							24	71	5											5
05/15/85	5050		10.3	47.0F	7.2	78	--	--	--	--	--	--	--	--	--	--				
0530	5050		90	8.3C											1AF	--				
05/15/85	5050		11.2	51.8F	7.7	77	--	--	--	--	--	--	--	--	--	--				
1140	5050		105	11.0C											1AF	--				
05/12/85	5050		9.3	68.9F	8.0	127	--	--	--	--	--	--	--	--	--	--				
1725	5050		106	20.5C											1AF	--				
05/12/85	5050		8.5	66.9F	8.1	129	--	--	--	--	--	--	--	--	--	--				
2115	5050		95	19.4C											1AF	--				
05/11/85	5050		9.1	62.6F	7.5	129	--	--	--	--	--	--	--	--	--	--				
0530	5050		97	17.0C											1AF	--				
05/13/85	5050		9.3	64.4F	7.8	129	--	--	--	--	--	--	--	--	--	--				
0925	5050		101	18.0C											1AF	--				
06/13/85	5050		9.1	69.1F	8.2	128	--	--	--	--	--	--	--	--	--	--				
1337	5050		104	20.6C											1AF	--				
08/13/85	5050		8.9	70.7F	8.1	127	--	--	--	--	--	--	--	--	--	--				
1720	5050		103	21.5C											1AF	--				
08/13/85	5050		8.6	66.0F	8.1	128	--	--	--	--	--	--	--	--	--	--				
2120	5050		97	20.0C											1AF	--				
05/14/85	5050		9.0	64.0F	7.3		--	--	--	--	--	--	--	--	--	--				
0545	5050		97	17.8C											1AF	--				
08/14/85	5050		9.6	68.0F	8.1	129	--	--	--	--	--	--	--	--	--	--				
1140	5050		108	20.0C											2AF	--				
08/14/85	5050		9.3	69.4F	8.1	130	--	--	--	--	--	--	--	--	--	--				
1340	5050		107	20.8C											1AF	--				
05/14/85	5050		8.8	69.9F	8.0	129	--	--	--	--	--	--	--	--	--	--				
1830	5050		101	21.0C											1AF	--				
	F3	2317.00		OAK FLAT C NR HAPPY CAMP								FO5C1								
05/15/85	5050		9.5	64.4F	7.9	170	25	4.0	6.0	--	71	--	4.0	--	.1	--		79	0.3	
1240	5050	2E	103	18.0C	9.3	182	1.25	.33	.26		1.42		.11		0A	--		8	0.4	
							68	18	14											5
	F3	2325.00		COON C NR SOMESBAR								FO5C1								
02/26/85	5050			45.0F	7.4	92	--	--	--	--	--	--	--	--	--	--				
1530	5050			7.2C											1AF	--				
	F3	2320.00		LITTLE GRIDER C A HAPPY CAMP								FO5C2								
02/26/85	5050		12.7	44.0F	7.4	96	--	--	--	--	--	--	--	--	--	--				
1425	5050	12E	91	6.7C											1AF	--				
05/15/85	5050		9.3	63.5F	7.8	128	10	8.0	4.0	--	57	--	4.0	--	.0	--		50	0.2	
1310	5050	3E	100	17.5C	8.2	133	.50	.66	.17		1.14		.11		0A	--		1	0.2	
							38	50	13											5

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER						
							CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TOS SUM	TH NCH	SAR ASAR	RES	
	F3	2329.00		INDIAN C AT MOUTH								FOSC2									
10/01/84	5050		10.7	57.9F	7.9	170	--	--	--	--	--	--	--	--	--	--					
1235	5050	25E	105	14.4C											2AF	--					
10/01/84	5050		10.0	57.9F	8.0	170	--	--	--	--	--	--	--	--	--	--					
1640	5050		101	14.4C											2AF	--					
10/01/84	5050		9.8	57.2F	8.1	173	--	--	--	--	--	--	--	--	--	--					
2100	5050		98	14.0C											2AF	--					
10/02/84	5050		8.9	55.4F	7.8	170	--	--	--	--	--	--	--	--	--	--					
0500	5050		87	13.0C											4AF	--					
10/02/84	5050		9.4	54.0F	7.7	170	--	--	--	--	--	--	--	--	--	--					
0845	5050		91	12.2C											4AF	--					
10/02/84	5050		10.3	55.9F	7.9	170	--	--	--	--	--	--	--	--	--	--					
1320	5050		102	13.3C											4AF	--					
10/03/84	5050		10.7	50.0F	8.0	170	--	--	--	--	--	--	--	--	--	--					
1225	5050	25E	110	15.0C											2AF	--					
02/25/85	5050		12.6	46.4F	8.1	111	--	--	--	--	--	--	--	--	--	--					
1345	5050		110	8.0C											1AF	--					
02/25/85	5050		11.6	42.1F	7.5	110	--	--	--	--	--	--	--	--	--	--					
1750	5050		98	5.6C											1AF	--					
02/25/85	5050		12.0	42.1F	7.6	114	--	--	--	--	--	--	--	--	--	--					
2125	5050		99	5.6C											1AF	--					
02/26/85	5050		12.4	38.5F	7.8	110	--	--	--	--	--	--	--	--	--	--					
0605	5050		97	3.6C											2AF	--					
02/26/85	5050		13.0	39.9F	7.7	110	--	--	--	--	--	--	--	--	--	--					
0935	5050		104	4.4C											3AF	--					
02/26/85	5050		13.0	40.5F	8.1	112	9.0	6.0	2.0	--	52	--	1.0	--	.0	--		56	0.1		
1335	5050		105	4.7C	8.0	113	.45	.66	.09		1.04		.03		14	--		4	0.1		S
							38	55	8												
03/05/85	5050		12.3	41.9F	6.8	117	--	--	--	--	--	--	--	--	--	--					
1530	5050		101	5.5C											1AF	--					
05/13/85	5050		11.0	53.0F	7.9	104	--	--	--	--	--	--	--	--	--	--					
1250	5050		105	11.7C											1AF	--					
05/13/85	5050		10.4	55.4F	7.8	106	--	--	--	--	--	--	--	--	--	--					
1625	5050		102	13.0C											1AF	--					
05/13/85	5050		10.1	54.0F	7.8	107	--	--	--	--	--	--	--	--	--	--					
1940	5050		98	12.2C											1AF	--					
05/14/85	5050		11.2	47.0F	7.5	104	--	--	--	--	--	--	--	--	--	--					
0500	5050		99	8.3C											1AF	--					
05/14/85	5050		11.6	47.0F	7.5	103	--	--	--	--	--	--	--	--	--	--					
0855	5050		102	8.3C											1AF	--					
05/14/85	5050		11.1	52.7F	7.8	103	--	--	--	--	--	--	--	--	--	--					
1235	5050		105	11.5C											1AF	--					
05/14/85	5050		10.7	55.4F	7.8	104	--	--	--	--	--	--	--	--	--	--					
1700	5050		105	13.0C											1AF	--					
05/14/85	5050		10.0	54.0F	7.8	102	9.0	6.0	2.0	--	49	--	1.0	--	.2	--		47	0.1		
2000	5050		97	12.2C	8.2	106	.45	.49	.09		.98		.03		04	--		0	0.1		S
							44	48	9												
05/15/85	5050		10.4	47.0F	7.3	104	--	--	--	--	--	--	--	--	--	--					
0505	5050		92	8.3C											2AF	--					
05/15/85	5050		11.4	50.0F	7.5	102	--	--	--	--	--	--	--	--	--	--					
1105	5050		105	10.0C											1AF	--					
09/12/85	5050		9.2	66.9F	8.3	163	--	--	--	--	--	--	--	--	--	--					
1650	5050		105	20.5C											2AF	--					
09/12/85	5050		8.2	66.9F	8.2	163	--	--	--	--	--	--	--	--	--	--					
2200	5050		92	19.4C											2AF	--					
09/13/85	5050		8.6	64.4F	7.8	165	--	--	--	--	--	--	--	--	--	--					
0530	5050		94	18.0C											3AF	--					

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B	F	TOS	TH	SAR	RES
	F3 2329.00			INDIAN C AT MOUTH								FOSC2 CONTINUED								
08/13/85 0855	5050 5050		9.5 106	66.2F 19.0C	7.9	168	--	--	--	--	--	--	--	--	TURB 24F	SIO2 --	SUM	NCH	ASAR	
08/13/85 1310	5050 5050		9.3 108	70.0F 21.1C	8.3	163	--	--	--	--	--	--	--	--	24F	--				
08/13/85 1630	5050 5050		9.0 104	69.8F 21.0C	8.4	163	--	--	--	--	--	--	--	--	24F	--				
08/13/85 2050	5050 5050		8.2 98	68.0F 20.0C	8.4	163	--	--	--	--	--	--	--	--	24F	--				
08/14/85 0910	5050 5050		8.5 94	66.0F 18.9C	7.3	164	--	--	--	--	--	--	--	--	24F	--				
08/14/85 1010	5050 5050		9.6 108	67.1F 19.5C	8.1	165	--	--	--	--	--	--	--	--	34F	--				
08/14/85 1305	5050 5050		9.2 108	71.1F 21.7C	8.3	165	--	--	--	--	--	--	--	--	34F	--				
08/14/85 1730	5050 5050		8.8 102	69.8F 21.0C	8.0	167	--	--	--	--	--	--	--	--	34F	--				
	F3 2355.00			PORTUGUESE C NR SEIAD VALLEY								FOSC2								
02/26/85 1015	5050 5050	15E	11.1 91	41.0F 5.0C	7.3	80	--	--	--	--	--	--	--	--	54F	--				
08/15/85 1435	5050 5050	3E	8.2 101	64.4F 18.0C	7.7 8.3	125 131	9.0 .45 33	10 .82 60	2.0 .09 7	--	64 1.28	--	1.0 .03	--	.0 04	--		64 0	0.1 0.1	S
	F3 2365.00			SEIAD C NR SEIAD VALLEY								FOSC3								
10/02/84 1215	5050 5050	5E	9.4 101	62.0F 16.7C	7.1 8.2	197 196	14 .70 33	15 1.23 59	4.0 .17 8	--	91 1.82	--	3.0 .08	--	.1 1A	--		98 6	0.2 0.3	S
02/26/85 1000	5050 5050	20E	10.5 83	40.5F 4.7C	7.5	112	--	--	--	--	--	--	--	--	54F	--				S
05/16/85 0940	5050 5050	10E	10.4 101	53.6F 12.0C	7.4 7.8	107 108	7.0 .35 34	8.0 .66 65	.0 .00 0	.3 .01 1	51 1.02 94	2.0 .04 4	1.0 .03 3	.0 .00 0	.0	-- --	71 49	50 0	0.0 0.0	T
08/15/85 1450	5050 5050	2E	7.9 94	71.6F 22.0C	7.3	181	--	--	--	--	--	--	--	--	04F	--				
	F3 4100.00			SALMON R A SOMESBAR								FOSB1								
10/02/84 1315	5050 5050		10.5 108	60.8F 16.0C	8.0	148	--	--	--	--	--	--	--	--	34F	--				
10/02/84 1705	5050 5050		10.4 108	61.7F 16.5C	8.0	148	--	--	--	--	--	--	--	--	14F	--				
10/02/84 2050	5050 5050		9.7 97	59.0F 15.0C	7.8	147	--	--	--	--	--	--	--	--	14F	--				
10/03/84 0555	5050 5050		9.7 94	56.3F 13.5C	7.8	147	--	--	--	--	--	--	--	--	14F	--				
10/03/84 0945	5050 5050	1.83 219	10.4 103	57.6F 14.2C	7.7	147	--	--	--	--	--	--	--	--	14F	--				
10/22/84 1205	5050 5050	2.36 424	11.5 104	50.9F 10.5C	7.6 7.9	120 116	15 .75 62	4.0 .33 27	3.0 .13 11	--	49 .98	--	2.0 .06	--	.0 1A	--	77	54 5	0.2 0.2	
02/26/85 1335	5050 5050	4.19 1660	12.4 103	44.1F 6.7C	7.4	98	--	--	--	--	--	--	--	--	14F	--				S
02/26/85 1730	5050 5050		12.1 99	43.0F 6.1C	7.3	99	--	--	--	--	--	--	--	--	14F	--				S
02/26/85 2140	5050 5050		12.1 99	43.0F 6.1C	7.5	102	--	--	--	--	--	--	--	--	34F	--				S
02/27/85 0655	5050 5050		11.9 93	39.9F 4.4C	7.7	99	--	--	--	--	--	--	--	--	14F	--				S
02/27/85 0945	5050 5050		12.5 101	42.1F 5.6C	7.3	101	--	--	--	--	--	--	--	--	14F	--				S
04/15/85 1440	5050 5050	6.21 4550	11.6 107	51.8F 11.0C	7.3 6.4	58	7.0 .35 64	2.0 .16 29	1.0 .04 7	--	25 .50	--	1.0 .03	--	.0 2A	--	42	26 1	0.1 0.0	E

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q	OD SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUR	TH MCH	SAR ASAR	REM
	F3	4100.00		SALMON R A SOMESBAR								FOSS1 CONTINUED								
05/13/85 1420	5050 5050		10.3 95	53.1F 11.7C	7.4	76	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/13/85 1615	5050 5050		10.0 94	54.0F 12.2C	7.6	78	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/13/85 2110	5050 5050		11.1 104	53.6F 12.0C	7.8	79	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/14/85 0440	5050 5050		11.0 101	52.0F 11.1C	7.2	77	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/14/85 0905	5050 5050		11.0 100	51.1F 10.6C	7.5	78	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/14/85 1225	5050 5050		11.0 104	54.0F 12.2C	7.6	76	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/14/85 1520	5050 5050		10.7 103	55.8F 13.2C	7.5	76	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/14/85 2140	5050 5050		10.3 100	54.5F 12.5C	7.8	76	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/15/85 0535	5050 5050		10.8 97	53.0F 10.0C	7.3 7.9	78 74	9.0 .45 64	2.0 .16 23	2.0 .09 13	--	34 .68	--	1.0 .03	--	.0 04	-- --		35 0	0.2 0.1	S
05/15/85 0810	5050 5050		10.7 96	50.0F 10.0C	7.2	74	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/15/85 1405	5050 5050		11.0 106	55.4F 13.0C	7.4	75	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/04/85 1230	5050 5050	3.58 1340	11.0 109	58.1F 14.5C	7.5	80	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/12/85 1330	5050 5050		9.3 107	71.6F 22.0C	8.2	137	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/12/85 1720	5050 5050		9.0 107	74.3F 23.5C	8.1	139	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/12/85 1945	5050 5050		8.5 99	71.1F 21.7C	8.3	136	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/13/85 0520	5050 5050		8.7 94	66.0F 18.9C	7.3	137	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/13/85 0840	5050 5050		9.3 101	66.2F 19.0C	7.7	138	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/13/85 1330	5050 5050		9.2 106	71.6F 22.0C	8.0	137	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/13/85 1710	5050 5050		9.2 103	73.0F 22.8C	8.1	138	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/13/85 2020	5050 5050		8.5 97	70.7F 21.5C	8.2	137	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/14/85 0450	5050 5050		8.8 96	66.2F 19.0C	7.8	137	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/14/85 0850	5050 5050	1.74 184	9.3 101	66.2F 19.0C	7.5	138	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/14/85 1250	5050 5050		9.2 106	71.6F 22.0C	8.1	137	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/30/85 1105	5050 5050	1.71 174	10.3 105	60.8F 16.0C	7.6	138	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
	F3	4155.00		IRVING C NR SOMESBAR								FOSC1								
10/03/84 2045	5050 5050		10.9 102	52.7F 11.5C	7.5	115	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/15/85 1405	5050 5050		10.9 104	54.5F 12.5C	7.5	104	--	--	--	--	--	--	--	--	-- 0AF	-- --				S
05/15/85 0850	5050 5050	42E	10.2 101	57.2F 14.0C	7.4 8.2	113 115	13 .65 54	4.0 .33 28	5.0 .22 15	--	53 1.06	--	2.0 .06	--	.0 0A	-- --		49 0	0.3 0.3	S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	DO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	REM
	F3 4160.00			SANDY BAR C NR SOMESBAR								FO5C1								
05/15/85 1515	5050 5050	15E	11.0 104	53.6F 12.0C	7.4	81	--	--	--	--	--	--	--	--	-- 0AF	-- --				
08/15/85 1000	5050 5050	4E	10.1 102	59.0F 15.0C	7.6 8.2	112 119	14 .70 58	4.0 .33 28	4.0 .17 14	--	57 1.14	--	1.0 .03	--	.4 04	-- --		52 0	0.2 0.3	S
	F3 4170.00			TI CREEK NR SOMESBAR								FO5C1								
10/03/84 1100	5050 5050	13E	10.9 102	52.7F 11.5C	7.6	134	--	--	--	--	--	--	--	--	-- 1AF	-- --				
02/26/85 1550	5050 5050	20E	9.8 82	44.0F 6.7C	7.4 5.0	107 111	14 .76 58	4.0 .33 28	4.0 .17 14	--	51 1.02	--	1.0 .03	--	.0 0A	-- --		52 1	0.2 0.2	S
03/05/85 1350	5050 5050		12.5 100	41.0F 5.0C	6.8	112	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/15/85 1530	5050 5050	10E	11.1 104	52.7F 11.5C	7.6	112	--	--	--	--	--	--	--	--	-- 1AF	-- --				
08/15/85 1030	5050 5050	6E	10.1 102	59.0F 15.0C	7.8	130	--	--	--	--	--	--	--	--	-- 0AF	-- --				
	F3 4190.00			INDEPENDENCE C NR CLEAR CREEK								FO5C1								
10/03/84 1140	5050 5050	10E	10.9 103	52.7F 11.5C	7.9	173	--	--	--	--	--	--	--	--	-- 2AF	-- --				
02/26/85 1500	5050 5050	30E	10.5 88	44.0F 6.7C	7.5 7.9	148 153	19 .95 62	5.0 .41 27	4.0 .17 11	--	68 1.38	--	1.0 .03	--	.0 0A	-- --		68 0	0.2 0.3	S
05/16/85 0745	5050 5050	12E	11.5 102	48.2F 9.0C	7.6 7.9	136 137	17 .85 65	4.0 .33 25	2.0 .09 7	1.1 .03 2	64 1.28 93	3.0 .06 4	1.0 .03 2	.3 .00 0	.0 --	-- --	86 67	59 0	0.1 0.1	T
08/15/85 1220	5050 5050	6E	10.0 104	60.8F 16.0C	7.9	165	--	--	--	--	--	--	--	--	-- 0AF	-- --				
	F3 4199.00			ELK C A HD A HAPPY CAMP								FO5C1								
10/02/84 0950	5050 5050	24E	11.1 105	52.7F 11.5C	8.0 8.0	182 181	20 1.00 54	7.0 .58 32	6.0 .26 14	--	78 1.56	--	4.0 .11	--	.1 1AF	-- --		79 1	0.3 0.4	S
02/26/85 1400	5050 5050	100E	10.5 86	42.0F 5.6C	7.5	120	--	--	--	--	--	--	--	--	-- 1AF	-- --				S
05/16/85 0815	5050 5050	100E	11.5 104	49.1F 9.5C	7.6 7.8	99 101	12 .60 63	4.0 .33 35	.0 .00 0	.8 .02 2	46 .92 93	2.0 .04 4	1.0 .03 3	.1 .00 0	.0 --	-- --	66 47	46 1	0.0 0.0	T
08/15/85 1335	5050 5050	20E	9.2 105	64.4F 21.0C	8.1	168	--	--	--	--	--	--	--	--	-- 0AF	-- --				
	F3 4245.00			GRIDER C NR SEIAD VALLEY								FO5C3								
08/15/85 1535	5050 5050	12E	9.1 101	65.8F 18.5C	8.1	215	--	--	--	--	--	--	--	--	-- 0AF	-- --				
	F3 4250.00			WALKER C NR SEIAD VALLEY								FO5C3								
02/26/85 0940	5050 5050	20E	10.9 86	38.0F 3.3C	7.7	149	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/15/85 1515	5050 5050	5E	9.2 100	62.6F 17.0C	7.9	185	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F3 4253.00			O'NEIL C AT MOUTH								FO5C3								
02/26/85 0900	5050 5050	10E	10.6 83	38.0F 3.3C	7.7	154	--	--	--	--	--	--	--	--	-- 1AF	-- --				
05/16/85 1000	5050 5050	4E	11.0 103	50.9F 10.5C	7.9	153	--	--	--	--	--	--	--	--	-- 0AF	-- --				
08/15/85 1600	5050 5050	.2	9.1 99	62.6F 17.0C	7.6 8.5	200 209	13 .65 29	18 1.48 65	3.0 .13 6	--	108 2.16	--	1.0 .03	--	.0 0A	-- --		107 0	0.1 0.2	S
	F4 L 049.0 245.9			CLAIR ENGLE LK NR FAIRVIEW BOAT RAMP								FC60U								
05/21/85 1300	5050 5050	0	9.9 101	44.4F 16.0C	7.6	76	4.0 .20 25	6.0 .49 62	2.0 .09 11	.4 .01 1	--	1.0 .02	1.0 .03	--	.0 1AF	-- --		34	0.0	S
09/18/85 1015	5050 5050	0	9.0 104	65.5F 18.6C	7.6	69	4.0 .20 25	5.6 .47 62	2.0 .09 11	.5 .01 1	--	2.0 .04	1.0 .03	--	.0 1AF	-- --		34	0.0	S

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. D	DO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUM	IN NCM	SAR ASAR	REM
	F4 1080.00			TRINITY R A HOOPA								FO6A1								
10/22/84 1045	5030 5030	12.89 1030	11.3 107	54.5F 12.5C	7.9	183	--	--	--	--	--	--	--	--	-- 1AF	-- --				
12/03/84 1100	5030 5030	19.38 11000	12.6 107	46.4F 8.0C	7.8	144	--	--	--	--	--	--	--	--	-- 19AF	-- --				
04/15/85 1320	5030 5030	16.97 5790	10.8 105	57.2F 14.0C	7.6	128	--	--	--	--	--	--	--	--	-- 4AF	-- --				
06/04/85 1100	5030 5030	13.56 1340	10.0 106	64.4F 18.0C	7.7	132	--	--	--	--	--	--	--	--	-- 1AF	-- --				
08/05/85 0940	5030 5030	12.14 779	9.4 108	71.6F 22.0C	7.8 8.3	160 161	18 .90 55	7.0 .58 33	4.0 .17 10	--	89 1.38	--	3.0 .09	--	.0 0A	-- --		74 5	0.2 0.3	5
09/30/85 1000	5030 5030	11.89 363	9.8 102	62.6F 17.0C	7.9	162	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F4 1376.00			TRINITY R NR BURNT RH								FO6A3								
10/22/84 0950	5030 5030		11.4 104	50.0F 10.0C	7.8	134	--	--	--	--	--	--	--	--	-- 1AF	-- --				
12/03/84 1005	5030 5030	3070	12.3 104	44.6F 7.0C	7.4	153	--	--	--	--	--	--	--	--	-- 2AF	-- --				
02/05/85 1010	5030 5030	871	12.6 99	39.2F 4.0C	7.5 8.1	155 156	17 .83 53	7.0 .58 36	4.0 .17 11	--	87 1.34	--	3.0 .08	--	.1 1A	-- --		72 3	0.2 0.3	5
04/15/85 1205	5030 5030	2930	10.8 105	55.4F 13.0C	7.5	95	--	--	--	--	--	--	--	--	-- 2AF	-- --				
06/04/85 0930	5030 5030	771	9.8 104	62.6F 17.0C	7.9	128	--	--	--	--	--	--	--	--	-- 1AF	-- --				
08/05/85 0830	5030 5030	528	9.2 102	66.2F 19.0C	7.6	121	--	--	--	--	--	--	--	--	-- 1AF	-- --				
09/30/85 0915	5030 5030	429	9.9 101	59.0F 15.0C	7.7	124	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F4 1640.00			TRINITY R A LEWISTON								FO6C1								
10/22/84 0830	5030 5030	3.89 304	10.7 98	48.2F 9.0C	7.2	79	--	--	--	--	--	--	--	--	-- 1AF	-- --				
12/03/84 0850	5030 5030	3.70 308	12.6 113	46.4F 8.0C	7.0	81	--	--	--	--	--	--	--	--	-- 2AF	-- --				
02/05/85 0910	5030 5030	3.73 336	11.6 100	43.7F 6.5C	7.4	87	--	--	--	--	--	--	--	--	-- 0AF	-- --				
04/15/85 1045	5030 5030	3.53 275	10.8 107	54.5F 12.5C	7.4	90	--	--	--	--	--	--	--	--	-- 1AF	-- --				
06/04/85 0825	5030 5030	3.62 303	10.3 103	55.4F 13.0C	7.8	85	--	--	--	--	--	--	--	--	-- 1AF	-- --				
08/05/85 0710	5030 5030	3.35 455	10.7 103	51.8F 11.0C	7.5 8.2	82 82	4.0 .20 26	8.0 .49 63	2.0 .09 12	--	38 .76	--	1.0 .03	--	.0 0A	-- --		34 0	0.1 0.1	5
09/30/85 0800	5030 5030	3.73 356	11.0 100	47.3F 8.5C	8.4	80	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F5 1100.00			MAD R NR ARCATA								FO9A0								
10/22/84 1425	5030 5030	4.00 141	12.3 123	59.0F 15.0C	8.4	190	--	--	--	--	--	--	--	--	-- 2AF	-- --				
12/03/84 1210	5030 5030	8.55 5230	11.5 102	48.2F 9.0C	7.3	89	--	--	--	--	--	--	--	--	-- 62AF	-- --				
02/05/85 1205	5030 5030	4.32 228		42.8F 6.0C	8.4	157	--	--	--	--	--	--	--	--	-- 2AF	-- --				
04/15/85 1710	5030 5030	4.62 372	11.3 109	57.2F 14.0C	7.4	132	--	--	--	--	--	--	--	--	-- 4AF	-- --				
06/04/85 1445	5030 5030	3.93 164	11.6 122	64.4F 18.0C	8.6	163	--	--	--	--	--	--	--	--	-- 3AF	-- --				
08/05/85 1055	5030 5030	3.71 31	9.7 105	67.1F 19.5C	8.0 8.0	198 200	28 1.40 72	4.0 .33 17	5.0 .22 11	--	84 1.68	--	3.0 .08	--	.1 1A	-- --		86 3	0.2 0.3	5

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q	DO SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CACO3	SO4	CL	HCO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH #CH	SAR ASAR	REM
							CA	MG	NA	K										
	F5	1100.00		MAD R NR ARCATA								F09A0 CONTINUED								
09/30/85	5050	3.92	11.6	59.0F	8.2	180	--	--	--	--	--	--	--	--	--	--				
1255	5050	78	115	15.0C											1AF	--				
	F5	5100.00		REDWOOD C A ORICK								F07A0								
10/22/84	5050	5.77	11.4	54.9F	7.8	153	--	--	--	--	--	--	--	--	--	--				
1515	5050	153	114	15.5C											1AF	--				
12/03/84	5050	10.58	12.2	48.2F	7.3	70	--	--	--	--	--	--	--	--	.0	--	123			
1300	5050	3790	105	9.0C											68AF	--				
02/05/85	5050	6.33	12.9	44.6F	7.2	107	14	2.0	4.0	--	35	--	4.0	--	.0	--		43	0.3	
1255	5050	277	106	7.0C	7.9	103	.70	.16	.17		.70		.11		1A	--		8	0.2	
							68	16	17											S
04/15/85	5050	8.92	10.4	54.5F	7.4	90	--	--	--	--	--	--	--	--	--	--				
1750	5050	625	97	12.5C											4AF	--				
																				S
06/05/85	5050	6.14	9.8	58.1F	7.5	114	--	--	--	--	--	--	--	--	--	--				
0550	5050	218	96	14.5C											1AF	--				
																				S
08/05/85	5050	5.38	10.0	66.2F	7.1	140	--	--	--	--	--	--	--	--	--	--				
1210	5050	25	107	19.0C											1AF	--				
																				S
09/30/85	5050	5.28	11.4	59.0F	7.3	127	16	3.0	6.0	--	52	--	7.0	--	.0	--		52	0.4	
1345	5050	16	113	15.0C	8.0	131	.80	.25	.26		1.04		.20		2AF	--		1	0.4	
							61	19	20											S
	F6	1100.00		EEL R A SCOTIA								F11A2								
10/23/84	5050		10.6	58.1F	7.9	293	--	--	--	--	--	--	--	--	--	--				
1010	5050	744	104	14.5C											1AF	--				
12/04/84	5050		11.5	47.3F	7.4	135	--	--	--	--	--	--	--	--	--	--				
1005	5050	23700	98	8.5C											112AF	--				
02/06/85	5050		12.4	46.4F	7.8	206	--	--	--	--	--	--	--	--	--	--				
1010	5050	1540	105	8.0C											2AF	--				
04/16/85	5050		10.1	59.0F	7.8	170	--	--	--	--	--	--	--	--	--	--				
1130	5050	3790	100	15.0C											3AF	--				
06/05/85	5050		13.2	67.1F	9.5	207	--	--	--	--	--	--	--	--	--	--				
0845	5050	473	143	19.5C											2AF	--				
08/06/85	5050		8.7	70.7F	8.0	288	35	10	10	--	127	--	6.0	--	.1	--		129	0.4	
0945	5050	83	98	21.5C	8.4	295	1.75	.82	.44		2.54		.17		2A	--		2	0.7	
							58	27	15											S
	F6	1154.90		EEL R A SOUTH FORK								F11C1								
10/24/84	5050		10.0	57.2F	7.7	313	--	--	--	--	--	--	--	--	--	--				
0730	5050	207	97	14.0C											1AF	--				
12/04/84	5050		11.1	47.3F	7.5	131	--	--	--	--	--	--	--	--	--	--				
1030	5050	11400	95	8.5C											55AF	--				
02/06/85	5050		12.3	43.7F	7.7	208	--	--	--	--	--	--	--	--	--	--				
1050	5050	854	100	6.5C											3AF	--				
04/17/85	5050		10.0	57.2F	7.8	183	--	--	--	--	--	--	--	--	--	--				
0845	5050	2510	97	14.0C											3AF	--				
06/05/85	5050		9.9	66.0F	8.2	222	--	--	--	--	--	--	--	--	--	--				
0925	5050	287	109	20.0C											2AF	--				
08/06/85	5050		10.5	71.6F	8.2	273	35	9.0	8.0	--	114	--	5.0	--	.2	--		125	0.3	
1015	5050	24	123	22.0C	8.3	280	1.75	.74	.35		2.28		.14		0A	--		11	0.5	
							62	26	12											S
	F6	1329.50		EEL R AB OUTLET C NR DOS RIOS								F11F2								
10/24/84	5050		10.7	55.4F	8.1	266	--	--	--	--	--	--	--	--	--	--				
005	5050	15	105	13.0C											1AF	--				
12/04/84	5050		11.5	47.3F	7.5	133	--	--	--	--	--	--	--	--	--	--				
1145	5050	1200	101	8.5C											11AF	--				
02/06/85	5050		12.1	43.7F	7.9	179	--	--	--	--	--	--	--	--	--	--				
1535	5050	139	101	6.5C											2AF	--				
04/17/85	5050		13.4	54.9F	9.0	183	--	--	--	--	--	--	--	--	--	--				
1110	5050	181	107	14.5C											2AF	--				

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. J	OD SAT	TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	REM
	F6 1329.50			EEL R AB OUTLET C NR DOS RIOS									F11F2 CONTINUED							
06/05/85	5050		9.7	73.4F	8.5	201	--	--	--	--	--	--	--	--	--	--				
1150	5050	25	115	23.0C											2AF	--				
08/06/85	5050		10.0	60.6F	8.7	217	22	8.0	11	--	84	--	5.0	--	.5	--		89	0.5	
1255	5050	3.0	128	27.0C	8.2	223	1.10	.66	.48		1.68		.14		1A	--		4	0.7	
							49	29	21											5
	F5 1350.00			OUTLET C AB LOWGVALE									F11F2							
10/24/84	5050		10.3	54.5F	7.9	346	--	--	--	--	--	--	--	--	--	--				
0955	5050	9.0	100	12.5C											1AF	--				
12/04/84	5050		11.8	47.3F	7.1	91	--	--	--	--	--	--	--	--	--	--				
1240	5050	739	104	8.5C											1AAF	--				
02/06/85	5050		10.5	42.8F	7.5	179	--	--	--	--	--	--	--	--	--	--				
1530	5050	55	69	6.0C											3AF	--				
04/17/85	5050		10.3	50.8F	8.0	168	--	--	--	--	--	--	--	--	--	--				
1100	5050	76	107	10.0C											3AF	--				
06/05/85	5050		10.9	66.2F	8.5	228	--	--	--	--	--	--	--	--	--	--				
1135	5050	14	121	19.0C											2AF	--				
08/06/85	5050		11.4	50.6F	8.4	283	25	11	18	--	117	--	17	--	1.7	--		108	0.8	
1250	5050	.5	147	27.0C	8.5	292	1.25	.90	.78		2.34		.48		1A	--		0	1.2	
							43	31	27											5
	F6 3039.31			EEL R AB A DOS RIOS									F1102							
10/24/84	5050	6.78	10.5	55.4F	8.1	275	31	9.0	10	--	90	--	9.0	--	.1	--		115	0.4	
1030	5050	85	105	13.0C	7.9	277	1.55	.74	.44		1.80		.25		2A	--		25	0.6	
							57	27	16											5
12/04/84	5050	10.10	12.2	43.7F	7.7	135	--	--	--	--	--	--	--	--	--	--				
1305	5050	2410	102	6.5C											2AAF	--				
02/06/85	5050	6.59	12.8	40.1F	7.8	206	--	--	--	--	--	--	--	--	--	--				
1305	5050	384	102	4.5C											1AF	--				
04/17/85	5050	5.96	10.8	55.4F	7.7	137	17	5.0	4.0	--	58	--	1.0	--	.0	--		63	0.2	
1135	5050		105	13.0C	7.8	138	.85	.41	.17		1.16		.03		5A	--		5	0.2	
							59	29	12											5
06/05/85	5050	6.04	10.6	66.2F	8.5	192	--	--	--	--	--	--	--	--	--	--				
1210	5050	136	117	19.0C											2AF	--				
08/06/85	5050	4.88	10.1	79.7F	8.7	294	--	--	--	--	--	--	--	--	--	--				
1310	5050	14	128	26.5C											1AF	--				
	F6 3050.00			MILL C NR COVELO									F1161							
12/04/84	5050		11.4	44.5F	7.3	151	--	--	--	--	--	--	--	--	--	--				
1340	5050	65E	98	7.0C											12AF	--				
02/06/85	5050			46.4F	8.3	321	31	20	9.0	--	162	--	5.0	--	.1	--		160	0.3	
1440	5050	40E		9.0C	8.2	341	1.55	1.64	.39		3.24		.14		3A	--		0	0.6	
							43	46	11											5
04/17/85	5050		9.9	61.7F	7.9	271	--	--	--	--	--	--	--	--	--	--				
1215	5050	20E	103	16.5C											3AF	--				
06/05/85	5050		9.6	73.4F	8.1	362	--	--	--	--	--	--	--	--	--	--				
1300	5050	3E	116	23.0C											2AF	--				
	F6 3120.31			EEL R AB BLACK BUTTE R									F1161							
10/24/84	5050		11.0	53.6F	8.1	209	24	9.0	9.0	--	66	--	11	--	.1	--		80	0.4	
1145	5050	53E	107	12.0C	8.0	209	1.20	.41	.39		1.32		.31		1A	--		15	0.6	
							60	21	20											5
12/04/84	5050		12.3	41.9F	7.3	101	--	--	--	--	--	--	--	--	--	--				
1430	5050	330E	102	5.5C											9AF	--				
																				5
02/06/85	5050		12.8	40.1F	7.4	143	18	4.0	4.0	--	55	--	3.0	--	.1	--		62	0.2	
1405	5050	73E	134	4.5C	8.1	142	.90	.33	.17		1.10		.38		1A	--		7	0.2	
							64	24	12											5
04/17/85	5050		11.1	51.8F	7.5	94	12	2.0	2.0	--	39	--	1.0	--	.0	--		38	0.1	
1310	5050	6530E	105	11.0C	7.6	90	.60	.16	.09		.78		.03		2A	--		0	0.1	
							71	19	11											5
06/05/85	5050		10.7	66.2F	8.4	165	--	--	--	--	--	--	--	--	--	--				
1340	5050	300E	121	19.0C											1AF	--				
																				5
08/06/85	5050		10.7	80.6F	8.6	321	--	--	--	--	--	--	--	--	--	--				
1400	5050	2E	140	27.0C											1AF	--				
																				5

TABLE C-1 (CONTINUED)

MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN *ILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUM	TH MCH	SAR ASAR	REM
	F6	3200.00			BLACK BUTTE R NR COVELO							F1161								
10/24/84 1140	5050	10E	10.7 109	57.2F 14.0C	7.9 8.1	303 304	46 2.30 72	7.0 .58 18	7.0 .30 9	--	97 1.94	--	3.0 .08	--	.0 1A	-- --	167	144 47	0.3 0.4	
12/04/84 1420	5050	200E	11.9 99	41.9F 5.5C	7.4	145	--	--	--	--	--	--	--	--	-- 13AF	-- --				
02/06/85 1400	5050	125E	12.3 103	42.8F 6.0C	7.7 8.1	201 206	29 1.45 71	5.0 .41 20	4.0 .17 8	--	77 1.54	--	2.0 .06	--	.0 2A	-- --		93 16	0.2 0.3	5
04/17/85 1325	5050	70E	10.6 103	53.6F 12.0C	7.6 7.5	136	18 .90 70	3.0 .25 20	3.0 .13 10	--	50 1.00	--	1.0 .03	--	.0 4A	-- --	82	58 8	0.2 0.2	
06/05/85 1345	5050	60E	10.7 128	71.6F 22.0C	8.4	213	--	--	--	--	--	--	--	--	-- 2AF	-- --				
08/06/85 1403	5050		9.6 130	84.2F 29.0C	8.6	254	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F6	4100.00			EEL R SF NR MIRANDA							F11C2								
10/24/84 0800	5050	4.83 120	9.4 91	38.3F 13.5C	7.8 7.9	245 247	27 1.35 54	9.0 .74 30	9.0 .39 16	--	94 1.88	--	7.0 .20	--	.1 2A	-- --		103 11	0.4 0.6	5
12/04/84 1100	5050	9.68 3430	11.4 100	49.1F 9.5C	7.3	112	--	--	--	--	--	--	--	--	-- 61AF	-- --				
02/06/85 1115	5050	3.98 384	12.3 104	46.4F 8.0C	7.8	174	--	--	--	--	--	--	--	--	-- 1AF	-- --				
04/17/85 0920	5050	6.74 604	10.2 97	55.4F 13.0C	7.6 7.9	160 162	17 .85 52	6.0 .49 30	7.0 .30 18	--	68 1.36	--	3.0 .08	--	.1 1A	-- --		67 0	0.4 0.5	5
06/05/85 1000	5050	6.01 175	10.0 112	69.8F 21.0C	8.3	196	--	--	--	--	--	--	--	--	-- 2AF	-- --				
08/06/85 1045	5050	3.67 43	9.3 106	71.6F 22.0C	8.2	203	--	--	--	--	--	--	--	--	-- 1AF	-- --				
	F6	5279.00			VAN DUZEN R NR BRIDGEVILLE							F1183								
10/23/84 0915	5050	2.41 67	11.1 105	54.5F 12.5C	7.9 8.1	234 236	30 1.50 64	7.0 .58 25	6.0 .26 11	--	86 1.72	--	4.0 .11	--	.0 2A	-- --	139	104 18	0.3 0.4	
12/04/84 0925	5050	3.27 1720	12.1 99	43.7F 6.5C	7.1	109	--	--	--	--	--	--	--	--	-- 30AF	-- --				
02/06/85 0920	5050	3.52 126	12.3 98	41.9F 5.5C	7.6 8.1	172 173	21 1.05 64	5.0 .41 25	4.0 .17 10	--	69 1.38	--	2.0 .06	--	.1 3A	-- --		73 4	0.2 0.3	5
04/16/85 1030	5050	3.82 372	11.3 108	55.4F 13.0C	7.5 6.7	141	17 .85 39	5.0 .41 29	4.0 .17 12	--	58 1.16	--	2.0 .06	--	.0 2A	-- --	82	63 5	0.2 0.2	
06/05/85 0755	5050	2.69 38	10.2 106	64.4F 18.0C	8.0	190	--	--	--	--	--	--	--	--	-- 2AF	-- --				
08/06/85 0835	5050	2.23 8.9	8.7 95	67.1F 19.5C	7.9	208	--	--	--	--	--	--	--	--	-- 2AF	-- --				
	F7	1100.00			MATTOLE R NR PETROLIA							F12C0								
10/23/84 1240	5050	3.96 92	12.0 120	59.9F 15.5C	8.3 8.1	257 256	35 1.75 70	5.0 .41 16	6.0 .35 14	--	80 1.60	--	5.0 .14	--	.1 2A	-- --	157	108 28	0.3 0.5	
04/16/85 1345	5050	4.79	13.3 102	59.0F 15.0C	8.0 7.4	164	20 1.00 61	4.0 .33 20	7.0 .30 18	--	59 1.18	--	3.0 .08	--	.C 1A	-- --	103	66 8	0.4 0.4	
	F7	2100.00			MATTOLE R NF A PETROLIA							F12C0								
10/23/84 1230	5050		10.1 103	61.7F 16.5C	7.9	340	--	--	--	--	--	--	--	--	-- 1AF	-- --				
04/16/85 1325	5050	40E	10.2 99	57.2F 14.0C	7.9	235	--	--	--	--	--	--	--	--	-- 3AF	-- --				
	F7	5100.00			BEAR R A CARETOWN							F1280								
10/23/84 1120	5050	18E	11.5 114	59.0F 15.0C	8.1 8.1	321 320	46 2.30 70	6.0 .49 15	11 .48 15	--	93 1.86	--	7.0 .20	--	.1 2A	-- --	198	140 47	0.4 0.7	
04/16/85 1235	5050	60E	10.6 103	57.2F 14.0C	8.0 7.0	202	26 1.30 66	4.0 .33 17	8.0 .35 18	--	--	--	5.0 .14	--	-- 1A	-- --		82	0.0	5

TABLE C-2
MINOR ELEMENT ANALYSES OF SURFACE WATER

Lab and Sampler Agency Code

5050 – California Department of Water Resources

Abbreviations

TIME	– Pacific Standard Time on a 24-hour clock
EC	– Electrical conductance in microseimens at 25 o C
TEMP	– Water temperature at time of sampling in degrees Fahrenheit (F) or Celsius (C)
pH	– Measure of acidity or alkalinity of water
CHROM (ALL)	– All Chromium
CHROM (HEX)	– Hexavalent Chromium
D	– Dissolved
T	– Total

TABLE C-2
MINOR ELEMENT ANALYSES OF SURFACE WATER

DATE TIME	SAMP LAB		FC	TEMP PH	ARSENIC	CONSTITUENTS IN MILLIGRAMS PER LITER BARIUM CADMIUM	CHROM (ALL) CHROM (HEX)	COPPER IRON		LEAD MANGANESE		MERCURY SELENIUM		SILVER ZINC	
	F3	1220.01		KLAMATH R A ORLEANS				F05A2							
10/03/84	5050			14.0C		--	--	0.00	T	0.00	T	--		--	
1005	5050		231	8.0	--	--	--	0.12	T	0.09	T	--		0.02	T
02/27/85	5050			43.0F		--	--	0.00	T	0.00	T	--		--	
1000	5050		151	7.6	--	--	--	0.23	T	0.01	T	--		0.01	T
05/15/85	5050			54.0F		--	--	0.00	T	0.00	T	--		--	
0605	5050		134	7.7	--	--	--	0.12	T	0.01	T	--		0.00	T
	F3	1327.00		KLAMATH R AR TI CREEK				F05C1							
08/14/85	5050			21.0C		--	--	0.00	T	0.00	T	--		--	
0905	5050		196	8.2	--	--	--	0.29	T	0.04	T	--		0.02	T
	F3	1336.00		KLAMATH R AR OAK FLAT CREEK				F05C1							
05/14/85	5050			48.0F		--	--	0.00	T	0.00	T	--		--	
2015	5050		154	8.3	--	--	--	0.18	T	0.01	T	--		0.00	T
08/14/85	5050			22.0C		--	--	0.00	T	0.00	T	--		--	
1040	5050		202	8.3	--	--	--	0.24	T	0.05	T	--		0.01	T
	F3	1430.00		KLAMATH R NR SEIAD VLY				F05C2							
05/14/85	5050			56.0F		--	--	0.00	T	0.00	T	--		--	
1910	5050		148	8.2	--	--	--	0.15	T	0.02	T	--		0.01	T
08/14/85	5050			21.5C		--	--	0.00	T	0.01	T	--		--	
0835	5050		233	7.9	--	--	--	0.68	T	0.04	T	--		0.02	T
	F3	1460.00		KLAMATH R A SARAH TOTTEN CAMPGROUN				F05C3							
02/26/85	5050			41.0F		--	--	0.00	T	0.00	T	--		--	
1225	5050		209	8.2	--	--	--	0.46	T	0.02	T	--		0.01	T
	F3	2329.00		INDIAN C AT MOUTH				F05C2							
02/26/85	5050			46.9F		--	--	0.00	T	0.00	T	--		--	
1335	5050		112	8.1	--	--	--	0.47	T	0.01	T	--		0.00	T
05/14/85	5050			54.0F		--	--	0.00	T	0.00	T	--		--	
2030	5050		102	7.8	--	--	--	0.23	T	0.01	T	--		0.00	T

TABLE C-3
MISCELLANEOUS ANALYSES OF SURFACE WATER

Lab and Sampler Agency Codes

5050 – California Department of Water Resources

Abbreviations and Constituents

TIME – Pacific Standard Time on a 24-hour clock
TEMP – Water temperature at time of sampling in degrees Fahrenheit (F) or Celcius (C)
EC – Electrical conductance in microseimens at 25 o C
DO – Dissolved oxygen content in milligrams per liter
GH – Instantaneous gage height in feet above an established datum
pH – Measure of acidity or alkalinity of water: F = field determination, L = Lab determination
DISCH – Instantaneous discharge in cubic feet per second (E = estimated)
MBAS – Methylene blue active substance (a test for detergent surfactants) in milligrams per liter
DEPTH – Depth in feet at which sample was collected
TURB – Jackson Turbidity Units measured with a Hach Nephelometer, (A), if in the field, (F)
T+L – Tannin and lignin as tannic acid in milligrams per liter
CHLOR – Field determination of residual chlorine in milligrams per liter
O+G – Oil and grease in milligrams per liter
COLOR – True color in color units
SET S – Settleable solids in milliliters per liter (ML/L) and milligrams per liter (MG/L)
BOD – Biochemical oxygen demand in milligrams per liter: B = 5 days
SUS S – Suspended solids in milligrams per liter; 5 = at 105 degrees C
COD – Chemical oxygen demand in milligrams per liter
V SUS S – Volatile suspended solids in milligrams per liter
CYANIDE – Cyanide in milligrams per liter
PHENOLS – Phenols in milligrams per liter
TOC – Total organic carbon in milligrams per liter
DOC – Dissolved organic carbon in milligrams per liter
IODIDE – Iodide in milligrams per liter
T ODOR – Threshold odor number at 60 degrees C
BROMIDE – Bromide in milligrams per liter
SULFITE – Sulfite in milligrams per liter
T SULF – Total sulfides in milligrams per liter
D SULF – Dissolved sulfides in milligrams per liter
CC EXT – Carbon chloroform extract
CA EXT – Carbon alcohol extract

TABLE C-3

MISCELLANEOUS ANALYSES OF SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.W.	F-PH L-PH	DISCH MEAS	DEPTH TUBE	T+L CHLOR	O+G COLOR	SET S ML/L MG/L	ROD SUS S	V	COD SUS S	CYANIDE PHENOLS	TOC DOC	IODIDE T OOOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
	F2	1050.00			SHASTA R NR YREKA							FC5F0						
10/23/84	5050	12.0C	10.4	8.4			--	--	--	0.3	R	--	--	--	--	--	--	--
1430	5050	478	3.4J		--		--	--	--	--		--	--	--	--	--	--	--
12/18/84	5050	4.5C	12.0	8.4			--	--	--	--		--	--	--	--	--	--	--
0945	5050	514	3.74		--		--	--	--	4	5	2	--	--	--	--	--	--
05/08/85	5050	14.0C	10.0	8.5			--	--	--	--		--	--	--	--	--	--	--
1315	5050	550	3.07		--		--	--	--	5	5	2	--	--	--	--	--	--
08/21/85	5050	17.0C					--	--	--	1.0	R	--	--	--	--	--	--	--
0620	5050				--		--	--	--	--		--	--	--	--	--	--	--
09/10/85	5050	14.0C	9.5	8.4			--	--	--	2.2	R	--	--	--	--	--	--	--
1125	5050	585	3.49		--		--	--	--	--		--	--	--	--	--	--	--
	F2	1055.00			SHASTA R AB YREKA C							FC5E0						
02/27/85	5050	4.0C	12.0	8.3	240	E	--	--	--	--		--	--	--	--	--	--	--
1220	5050	428			--		--	--	--	12	5	4	--	--	--	--	--	--
04/16/85	5050	14.0C	11.1	8.2	150	E	--	--	--	--		--	--	--	--	--	--	--
1105	5050	576			--		--	--	--	5	5	3	--	--	--	--	--	--
06/13/85	5050	23.0C	9.7	8.3			--	--	--	--		--	--	--	--	--	--	--
1050	5050	440			--		--	--	--	6	5	2	--	--	--	--	--	--
07/09/85	5050	25.0C	9.0	8.6	35	E	--	--	--	--		--	--	--	--	--	--	--
1125	5050	627			--		--	--	--	8	5	2	--	--	--	--	--	--
	F2	1350.00			SHASTA R NR GRENADA							FC5E0						
02/25/85	5050	10.0C	10.0	8.0	130	E	--	--	--	--		--	--	--	--	--	--	--
0940	5050	426			--		--	--	--	2	5	2	--	--	--	--	--	--
	F2	5290.00			SCOTT R NR FORT JONES							FC5D2						
11/26/84	5050	4.0C	13.0	7.4			--	--	--	5.4	R	--	--	--	--	--	--	--
1330	5050	178			--		--	--	--	--		--	--	--	--	--	--	--
05/08/85		14.5C					--	--	--	1.8	R	--	--	--	--	--	--	--
1530	5050		9.61		--		--	--	--	--		--	--	--	--	--	--	--
09/10/85	5050	15.5C	9.6	8.4			--	--	--	1.0	R	--	--	--	--	--	--	--
1445	5050	289	4.04		--		--	--	--	--		--	--	--	--	--	--	--
	F3	1220.01			KLAMATH R A ORLEANS							FC5A2						
02/27/85	5050	43.0F	12.6	7.4			--	--	--	--		--	--	--	--	--	--	--
1000	5050	151			--		--	--	--	4	5	3	--	--	--	--	--	--
05/15/85	5050	54.0F	10.3	7.7			--	--	--	0.8	R	--	--	2.8	--	--	--	--
0605	5050	135			--		--	--	--	3	5	2	--	--	--	--	--	--
	F3	1402.00			KLAMATH R AB SALMON RIVER							FC5A2						
05/15/85	5050	55.0F	10.7	7.9			--	--	--	--		--	--	--	--	--	--	--
0515	5050	143			--		--	--	--	4	5	2	--	--	--	--	--	--
	F3	1327.00			KLAMATH R AB TI CREEK							FC5C1						
02/27/85	5050	42.0F	12.1	7.5			--	--	--	--		--	--	--	--	--	--	--
0900	5050	164			--		--	--	--	4	5	3	--	--	--	--	--	--
05/15/85	5050	56.0F	10.0	8.0			--	--	--	--		--	--	2.5	--	--	--	--
0449	5050	150			--		--	--	--	4	9	2	--	--	--	--	--	--
08/14/85	5050	21.0C	8.5	8.2			--	--	--	--		--	--	--	--	--	--	--
0845	5050	198			--		--	--	--	12	5	5	--	--	--	--	--	--
	F3	1330.00			KLAMATH R AB DILLON C							FC5C1						
02/27/85	5050	43.0F	12.1	7.6			--	--	--	--		--	--	--	--	--	--	--
0845	5050	141			--		--	--	--	6	5	3	--	--	--	--	--	--
05/15/85	5050	55.0F	10.7	8.2			--	--	--	1.3	B	--	--	2.7	--	--	--	--
0400	5050	144			--		--	--	--	3	5	2	--	--	--	--	--	--
	F3	1333.00			KLAMATH R AB INDEPENDENCE CREEK							FC5C1						
02/26/85	5050	42.0F	12.1	8.0			--	--	--	--		--	--	--	--	--	--	--
1445	5050	171			--		--	--	--	4	5	2	--	--	--	--	--	--
05/16/85	5050	58.0F	9.0	8.4			--	--	--	--		--	--	--	--	--	--	--
2050	5050	150			--		--	--	--	5	5	3	--	--	--	--	--	--
	F3	1334.00			KLAMATH R AB OAK FLAT CREEK							FC5C1						
02/26/85	5050	42.0F	12.7	8.1			--	--	--	--		--	--	--	--	--	--	--
1403	5050	188			--		--	--	--	4	5	3	--	--	--	--	--	--
05/14/85	5050	54.0F	10.0	8.3			--	--	--	1.2	R	--	--	3.6	--	--	--	--
2015	5050	150			--		--	--	--	4	5	3	--	--	--	--	--	--
08/14/85	5050	22.0C	8.7	8.2			--	--	--	--		--	--	--	--	--	--	--
1040	5050	302			--		--	--	--	1	5	1	--	--	--	--	--	--
	F3	1335.00			KLAMATH R AB HAPPY CAMP							FC5C2						
05/14/85	5050	50.0F	10.0	8.0			--	--	--	--		--	--	3.8	--	--	--	--
1940	5050	158			--		--	--	--	6	5	3	--	--	--	--	--	--
	F3	1440.00			KLAMATH R NR SPEAR VLY							FC5C2						
12/17/84	5050	4.5C	14.0	7.8			--	--	--	--		--	--	--	--	--	--	--
1545	5050	213			--		--	--	--	5	5	1	--	--	--	--	--	--
05/16/85	5050	50.0F	10.0	8.2			--	--	--	1.5	R	--	--	3.7	--	--	--	--
1910	5050	164			--		--	--	--	4	5	2	--	--	--	--	--	--

TABLE C-3 (CONTINUED)
MISCELLANEOUS ANALYSES OF SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.M.	F-PH L-PH	DISCH MEAS	DEPTH TURB	T+L CHLOR	O+G COLOR	SET S ML/L MG/L	ROD SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	IONIDE T ODOR	PROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
	F3 1460.00				KLAMATH R A SARAH TOTTEN CAMPGROUN						F05C3						
02/26/85	5050	41.0F	12.1	8.2			--	--	--	--	--	--	--	--	--	--	--
1225	5050	205			--		--	--	--	A 5	4	--	--	--	--	--	--
05/14/85	5050	59.0F	9.3	8.2			--	--	--	--	--	--	--	--	--	--	--
1845	5050	168			--		--	--	--	9 5	2	--	--	--	--	--	--
	F3 1599.01				KLAMATH R BL IRON GT OR						F05C6						
12/18/84	5050	3.0C	13.4	7.5			--	--	--	--	--	--	--	--	--	--	--
1010	5050	177			--		--	--	--	7 5	2	--	--	--	--	--	--
	F3 2240.00				DILLON C NR SOMESBAR						F05C1						
05/15/85	5050	47.0F	11.1	7.6			--	--	--	--	--	--	0.7	--	--	--	--
0405	5050	79			--		--	--	--	1 5	1	--	--	--	--	--	--
	F3 2315.00				CLEAR C NR HAPPY CAMP						F05C1						
05/14/85	5050	52.0F	10.1	7.2			--	--	--	--	--	--	--	--	--	--	--
2030	5050	82			--		--	--	--	1 5	1	--	--	--	--	--	--
	F3 2329.00				INDIAN C AT MOUTH						F05C2						
02/26/85	5050	40.5F	13.0	8.1			--	--	--	--	--	--	--	--	--	--	--
1335	5050	112			--		--	--	--	2 5	2	--	--	--	--	--	--
05/14/85	5050	54.0F	10.0	7.8			--	--	--	--	--	--	0.8	--	--	--	--
2000	5050	102			--		--	--	--	1 5	1	--	--	--	--	--	--
	F3 4100.00				SALMON R A SOMESBAR						F05R1						
10/22/84	5050	10.5C	11.5	7.6			--	--	--	0.8 B	--	--	--	--	--	--	--
1205	5050	129	2.36		--		--	--	--	--	--	--	--	--	--	--	--
04/15/85	5050	11.0C	11.6	7.5			--	--	--	0.6 B	--	--	--	--	--	--	--
1440	5050		6.21		--		--	--	--	6 9	4	--	--	--	--	--	--
05/15/85	5050	50.0F	10.8	7.3			--	--	--	1.1 B	--	--	1.2	--	--	--	--
0535	5050	78			--		--	--	--	1 5	1	--	--	--	--	--	--
	F6 3009.01				EEL R NF A DOS RIOS						F11N2						
04/17/85	5050	13.0C	10.8	7.7			--	--	--	--	--	--	--	--	--	--	--
1135	5050	137	8.9A		--		--	--	--	4 5	3	--	--	--	--	--	--
	F6 3120.01				EEL R NF AB BLACK BUTTE R						F11G1						
04/17/85	5050	11.0C	11.1	7.8	6500 E		--	--	--	--	--	--	--	--	--	--	--
1310	5050	94			--		--	--	--	3 5	2	--	--	--	--	--	--
	F6 3200.00				BLACK BUTTE R NR COVELO						F11G1						
10/24/84	5050	14.0C	10.7	7.9	10 E		--	--	--	0.9 R	--	--	--	--	--	--	--
1140	5050	303			--		--	--	--	--	--	--	--	--	--	--	--
04/17/85	5050	12.0C	10.6	7.6	70 E		--	--	--	0.6 R	--	--	--	--	--	--	--
1325	5050				--		--	--	--	7 5	2	--	--	--	--	--	--
	F6 5270.00				VAN DUZEN R NR RPINGEVILLE						F11R3						
10/23/84	5050	12.5C	11.1	7.9			--	--	--	0.8 R	--	--	--	--	--	--	--
0915	5050	234	2.41		--		--	--	--	--	--	--	--	--	--	--	--
04/16/85	5050	13.0C	11.3	7.5			--	--	--	0.4 B	--	--	--	--	--	--	--
1030	5050		3.82		--		--	--	--	3 5	2	--	--	--	--	--	--
	F7 1100.00				MATTOLE R NR PETROLIA						F12C0						
10/23/84	5050	15.5C	12.0	8.3			--	--	--	0.5 R	--	--	--	--	--	--	--
1240	5050	257	3.96		--		--	--	--	--	--	--	--	--	--	--	--
04/16/85	5050	15.0C	10.3	8.0			--	--	--	0.3 R	--	--	--	--	--	--	--
1345	5050		4.79		--		--	--	--	2 5	2	--	--	--	--	--	--
	F7 5100.00				REAR R A CAPETOWN						F12R0						
10/23/84	5050	15.0C	11.5	8.1	18 E		--	--	--	0.6 R	--	--	--	--	--	--	--
1120	5050	321			--		--	--	--	--	--	--	--	--	--	--	--
04/16/85	5050	14.0C	10.6	8.0	80 E		--	--	--	0.4 R	--	--	--	--	--	--	--
1235	5050				--		--	--	--	A 5	4	--	--	--	--	--	--

TABLE C-4
NUTRIENT ANALYSES OF SURFACE WATER

Lab and Sampler Agency Code

5050 – California Department of Water Resources

Abbreviations

TIME – Pacific Standard Time on a 24-hour clock
GH – Instantaneous gage height, in feet, above an established datum
Q – Instantaneous discharge in cubic feet per second
TEMP – Water temperature at time of sampling in degrees Fahrenheit (F) or Celsius (C)
Depth – Depth, in feet, when measurement was taken
F EC – Field determination of electrical conductance in microseimens at 25°C
F PH – Field determination of acidity or alkalinity
TURB – Jackson Turbidity Units measured with a Hach Nephelometer, (A), if in the field, (F)
F-C02 – Field determination of carbon dioxide in milligrams per liter
P ALK – Field determination of alkalinity (Phenol)
T ALK – Field determination of alkalinity (Total)

(Nitrogen Series as N)

D N02+N03 – Dissolved nitrite and nitrate
D N02 – Dissolved nitrite
D NO3 – Dissolved nitrate
D ORG N – Dissolved organic nitrogen
T ORG N – Total organic nitrogen
D NH 3 – Dissolved ammonia
T NH 3 – Total ammonia
T (NH3+ORG N) – Total ammonia plus organic nitrogen

(Phosphorus Series as P)

DIS.A.H.P04 – Dissolved acid hydrolyzable phosphate
D O-P04 – Dissolved orthophosphate
T O-P04 – Total orthophosphate
D TOT P – Dissolved total phosphorus
T TOT P – Total phosphorus

TABLE C-4

NUTRIENT ANALYSES OF SURFACE WATER

DATE TIME	SAMP LAB	G.H. O	FIELD DEPTH	F PH	F EC	TURB F CO2	F ALK T ALK	D NO2 + NO3	CONSTITUENTS IN MILLIGRAMS PER LITER D NO2 O NO3	D ORG N T ORG N	D NH3 T NH3	T NH3 + ORG N	DIS A.W.PO4	D O-PO4 T O-PO4	D TOT P T TOT P
	F2 R 132.3 222.4				OWINNELL RES NR OM						F05E0				
05/22/85	5050		20.0C	26P	24F		0.01	--	--		0.02		--	0.00	--
1000	5056		6	R.3				--	--	--	--	0.6		--	0.03
05/22/85	5050		12.5C	28A	34F		0.02	--	--		0.28		--	0.02	--
1000	5050		49	7.9				--	--	--	--	1.1		--	0.11
09/19/85	5050		17.2C	345	44F		0.00	--	--		0.01		--	0.03	--
1360	5050		0	R.4				--	--	--	--	0.7		--	0.08
09/19/85	5056		14.5C	361	54F		0.00	--	--		0.06		--	0.03	--
1300	5050		34	R.1				--	--	--	--	0.7		--	0.12
	F2 1050.00				SHASTA R NR YREKA						F05E0				
10/23/84	5050	3.53	12.0C	47R	44F		0.11	--	--		--		--	0.10	--
1430	5050			R.4				--	--	--	--	--		--	--
12/18/84	5050	3.74	4.5C	51R	34F		0.32	--	--		--		--	0.11	--
0945	5050			R.4				--	--	--	--	0.3		--	0.16
05/08/85	5050	3.07	14.0C	550	34F		0.01	--	--		--		--	0.22	--
1315	5050			R.9				--	--	--	--	0.6		--	0.28
08/21/85	5050	2.73	17.0C	615	24F		0.00	--	--		--		--	0.13	--
0620	5050			R.R				--	--	--	--	--		--	--
	F2 1065.00				SHASTA R AR YREKA C						F05E0				
02/27/85	5050		9.0C	42R	54F		0.14	--	--		--		--	0.11	--
1220	5050	240 E		R.3				--	--	--	--	0.4		--	0.15
04/16/85	5050		14.0C	57R	34F		0.02	--	--		--		--	0.25	--
1105	5050	150 E		R.2				--	--	--	--	0.8		--	0.29
06/13/85	5050		23.0C	640	34F		0.01	--	--		--		--	0.11	--
1050	5050	35 E		R.3				--	--	--	--	1.2		--	0.23
07/09/85	5050		25.0C	627	44F		0.00	--	--		--		--	0.15	--
1125	5050	35 E		R.6				--	--	--	--	1.0		--	0.23
	F2 1350.00				SHASTA R NR FREMONT						F05E0				
02/25/85	5050		10.0C	42R	24F		0.22	--	--		--		--	0.13	--
0940	5050	130 E		R.C				--	--	--	--	0.2		--	0.15
03/12/85	5050		9.5C	43T	34F		0.18	--	--		--		--	0.14	--
1140	5050	120 F		R.2				--	--	--	--	0.3		--	0.14
	F2 5250.00				SCOTT R NR FORT JONES						F05D2				
11/26/84	5050		4.0C	17R			0.23	--	--		--		--	0.02	--
1330	5050			7.4				--	--	--	--	--		--	--
05/08/85	5050	5.16	14.5C	153	34F		0.12	--	--		--		--	0.01	--
1530	5050			R.1				--	--	--	--	0.2		--	0.02
09/10/85	5050	4.94	15.5C	289	14F		0.34	--	--		--		--	0.00	--
1445	5050			R.4				--	--	--	--	--		--	--
	F3 L 150.8 220.0				COPCO LK NR COPCO						F05C7				
05/21/85	5050		10.4C	137	24F		0.00	--	--		0.01		--	0.02	--
1800	5056		0	R.3				--	--	--	--	0.6		--	0.10
05/21/85	5050		10.0C	154	34F		0.30	--	--		0.33		--	0.16	--
1800	5050		49	7.0				--	--	--	--	0.9		--	0.23
09/19/85	5050		15.2C	260	24F		0.68	--	--		0.17		--	0.14	--
0845	5050		0	7.4				--	--	--	--	1.2		--	0.21
09/19/85	5050		13.0C	208	44F		0.42	--	--		0.69		--	0.22	--
0845	5050		82	6.8				--	--	--	--	1.8		--	0.35
	F3 R 156.6 226.1				IRONGATE RES NR HORNBROOK						F05C6				
05/22/85	5050		13.6C	131	34F		0.00	--	--		0.02		--	0.01	--
0745	5050		0	R.4				--	--	--	--	0.7		--	0.10
05/22/85	5050		15.1C	135	34F		0.01	--	--		0.02		--	0.02	--
0745	5050		23	R.G				--	--	--	--	0.5		--	0.07
09/19/85	5050		16.7C	207	34F		0.40	--	--		0.21		--	0.19	--
0715	5050		0	7.3				--	--	--	--	1.0		--	0.20
09/19/85	5050		16.7C	203	24F		0.42	--	--		0.22		--	0.18	--
0715	5050		23	7.2				--	--	--	--	1.0		--	0.21
	F3 1065.00				KLAMATH R A KLAMATH GLEN						F05A1				
08/05/85	5050	6.79	22.0C	18C	24F		0.00	--	--		--		--	0.01	--
1255	5050			R.4				--	--	--	--	0.2		--	0.03
	F3 1220.01				KLAMATH R A ORLEANS						F05A2				
10/03/84	5050	1.97	14.0C	231	24F		0.18	--	--		--		--	--	--
1005	5050			R.0				--	--	--	--	0.6		--	0.12
10/22/84	5050	3.04	13.0C	19A	44F		0.52	--	--		--		--	0.09	--
1140	5050			R.0				--	--	--	--	0.6		--	0.14
02/27/85	5050		43.0F	151	44F		0.20	--	--		--		--	0.01	--
1003	5050			7.F				--	--	--	--	0.3		--	0.04
05/15/85	5050		54.0F	135	14F		0.00	--	--		--		--	0.01	--
0635	5050			7.7				--	--	--	--	0.1		--	0.02
08/14/85	5050	1.22	22.0C	144	34F		0.00	--	--		--		--	0.04	--
0920	5050			R.1				--	--	--	--	0.5		--	0.08

TABLE C-4 (CONTINUED)
NUTRIENT ANALYSES OF SURFACE WATER

DATE TIME	SAMP LAB	G.H. O	TEMP DEPTH	FIELD P EC P PH	TIME P CO2	P ALK T ALK	D NO2 + NO3	D NO2 D NO3	CONSTITUENTS IN MILLIGRAMS PER LITER D ORG N T ORG N	D NH3 T NH3	T NH3 + ORG N	O15 D.H.PO4	D O-PO4 T O-PO4	P TOT P T TOT P
	F3	1332.00		KLAMATH R AB SALMON RIVER					FC5A2					
10/03/84	5050		14.0C	239	2AF		0.22	--	--	--		--	--	--
0930	5050			7.9				--	--	--	0.9		--	0.13
05/15/85	5050		55.0F	153	1AF		0.30	--	--	--		--	0.01	--
0515	5050			7.9				--	--	--	0.1		--	0.02
	F3	1327.00		KLAMATH R AB TI CREEK					FC5C1					
10/03/84	5050		15.5C	241	2AF		0.23	--	--	--		--	--	--
0930	5050			8.2				--	--	--	0.7		--	0.13
02/27/85	5050		42.0F	144	4AF		0.27	--	--	--		--	0.01	--
0903	5050			7.5				--	--	--	0.2		--	0.05
05/15/85	5050		58.0F	150	1AF		0.00	--	--	--		--	0.01	--
0445	5050			8.6				--	--	--	0.2		--	0.02
08/14/85	5050		21.0C	194	7AF		0.01	--	--	--		--	0.06	--
0805	5050			8.2				--	--	--	1.0		--	0.12
	F3	1330.00		KLAMATH R AB DILLON C					FC5C1					
02/27/85	5050		43.0F	181	9AF		0.28	--	--	--		--	0.00	--
0845	5050			7.8				--	--	--	0.4		--	0.05
05/15/85	5050		55.0F	148	1AF		0.00	--	--	--		--	0.01	--
0400	5050			8.2				--	--	--	0.2		--	0.03
	F3	1333.00		KLAMATH R AB INDEPENDENCE CREEK					FC5C1					
02/26/85	5050		42.0F	171	4AF		0.31	--	--	--		--	0.02	--
1445	5050			8.0				--	--	--	0.2		--	0.05
05/14/85	5050		58.0F	156	2AF		0.00	--	--	--		--	0.01	--
2050	5050			8.4				--	--	--	0.2		--	0.03
	F3	1336.00		KLAMATH R AB OAK FLAT CREEK					FC5C1					
02/26/85	5050		42.0F	188	9AF		0.35	--	--	--		--	0.02	--
1400	5050			8.1				--	--	--	0.3		--	0.06
05/14/85	5050		54.0F	159	2AF		0.00	--	--	--		--	0.01	--
2015	5050			8.3				--	--	--	0.2		--	0.03
08/14/85	5050		22.0C	202	8AF		0.01	--	--	--		--	0.00	--
1040	5050			8.3				--	--	--	0.0		--	0.01
	F3	1334.00		KLAMATH R AB HAPPY CAMP					FC5C2					
10/02/84	5050		15.0C	252	4AF		0.30	--	--	--		--	--	--
1310	5050			8.3				--	--	--	0.8		--	0.15
04/14/85	5050		50.0F	168	3AF		0.00	--	--	--		--	0.02	--
1940	5050			8.0				--	--	--	0.3		--	0.05
	F3	1430.00		KLAMATH R NR SEIAD VLY					FC5C2					
10/03/84	5050		14.7C	256	2AF		0.34	--	--	--		--	--	--
1300	5050			8.2				--	--	--	0.7		--	0.18
12/17/84	5050		4.5C	213	6AF		0.60	--	--	--		--	0.04	--
1545	5050			7.8				--	--	--	1.1		--	0.09
05/14/85	5050		59.0F	164	2AF		0.00	--	--	--		--	0.02	--
1910	5050			8.2				--	--	--	0.3		--	0.04
08/14/85	5050		21.5C	203	4AF		0.14	--	--	--		--	0.10	--
0839	5050			7.9				--	--	--	0.7		--	0.15
	F3	1440.00		KLAMATH R A SARAH TOTTEN CAMPGROUN					FC5C3					
02/26/85	5050		41.0F	205	4AF		0.51	--	--	--		--	0.03	--
1225	5050			8.2				--	--	--	0.4		--	0.08
05/14/85	5050		49.0F	168	2AF		0.30	--	--	--		--	0.02	--
1845	5050			8.2				--	--	--	0.2		--	0.04
	F3	1500.01		KLAMATH R BL IRON GT OA					FC5C6					
12/18/84	5050		3.0C	177	9AF		0.51	--	--	--		--	0.06	--
1010	5050			7.5				--	--	--	1.5		--	0.12
05/08/85	5050		14.0C	153	4AF		0.17	--	--	--		--	0.06	--
1345	5050			8.1				--	--	--	0.6		--	0.09
	F3	2250.00		DILLON C NR SOMESBAR					FC5C1					
05/15/85	5050		47.0F	74	0AF		0.00	--	--	--		--	0.00	--
0405	5050			7.4				--	--	--	0.3		--	0.00
	F3	2315.00		CLEAR C NR HAPPY CAMP					FC5C1					
05/14/85	5050		52.0F	82	1AF		0.00	--	--	--		--	0.00	--
2030	5050			7.2				--	--	--	0.0		--	0.00
	F3	2329.00		INDIAN C AT MOUTH					FC5C2					
02/26/85	5050		41.5F	112	2AF		0.30	--	--	--		--	0.00	--
1335	5050			8.1				--	--	--	0.1		--	0.01
05/14/85	5050		54.0F	102	1AF		0.00	--	--	--		--	0.00	--
2000	5050			7.7				--	--	--	0.0		--	0.00

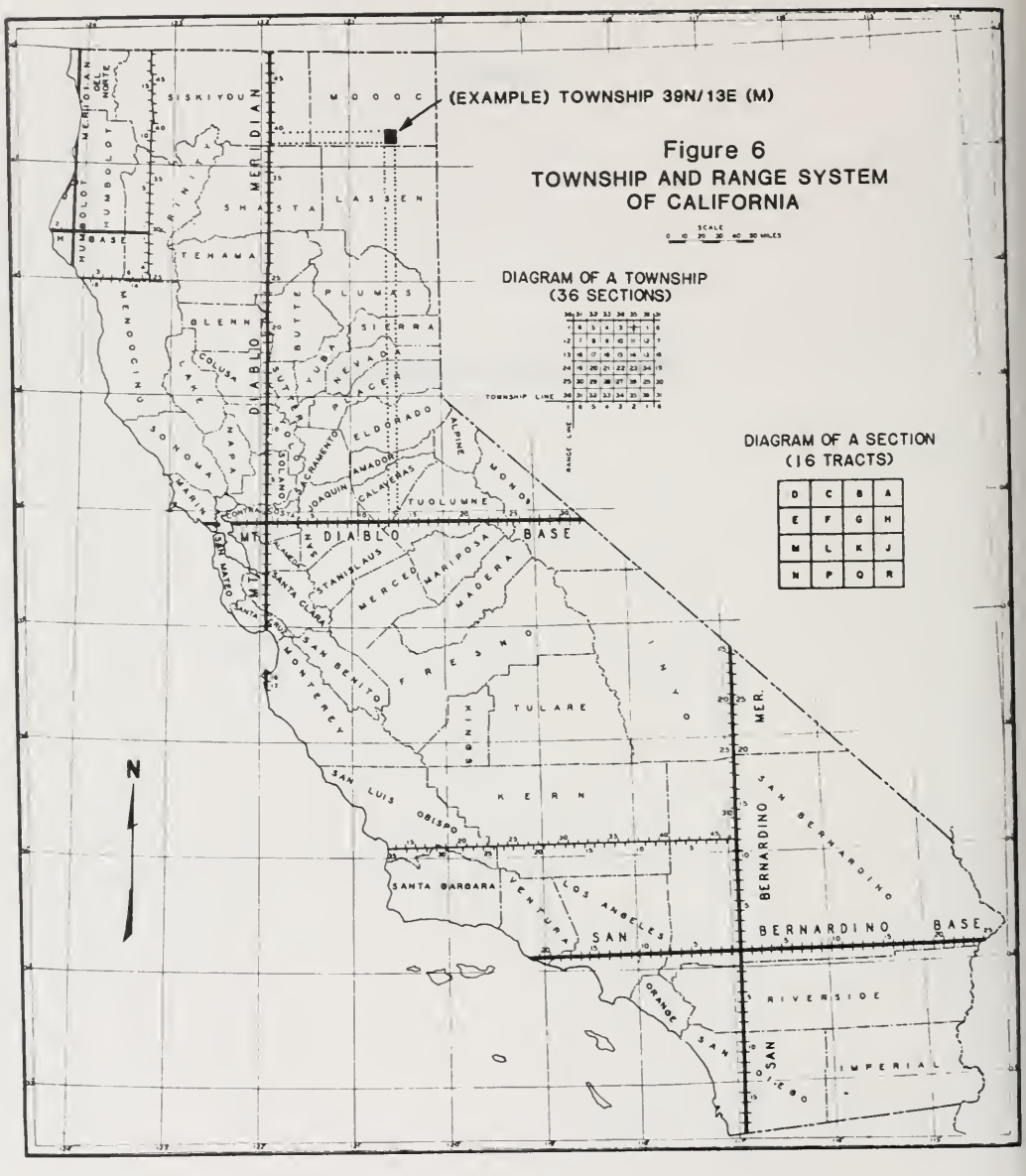
TABLE C-4 (CONTINUED)

NUTRIENT ANALYSES OF SURFACE WATER

DATE TIME	SAMP LAB	G.H. O DEPTH	TEMP	FIELD F EC F PH	TURB F CO2	P ALK T ALK	CONSTITUENTS IN MILLIGRAMS PER LITER D NO2 + NO3	D NO2 D NO3	D ORG N T ORG N	D NH3 T NH3	T NH3 + ORG N	DIS A.H.PO4	D O-PO4 T O-PO4	D TOT P T TOT P
	F3	4100.00		SALMON R A SOMESBAR									FO581	
10/22/84	5050		10.5C	129	1AF		0.00	--	--	--		--	0.00	--
1205	5050			7.6				--	--	--	--		--	--
04/15/85	5050		11.0C	5R	2A		0.02	--	--	--		--	0.01	--
1440	5050			7.3				--	--	--	0.1		--	0.01
05/15/85	5050		50.0F	7R	0AF		0.00	--	--	--		--	0.00	--
0515	5050			7.1				--	--	--	0.0		--	0.00
	F3	4199.00		ELK C A MD A HAPPY CAMP									F05C1	
10/02/84	5050		11.5C	182	1AF		0.00	--	--	--		--	--	--
0950	5050	24 E		8.0				--	--	--	0.1		--	0.01
	F4 L	049.0	245.9	CLAIR ENGLE LK NR FAIRVIEW BOAT RAMP									F06D0	
05/21/85	5050		18.0C	76	1AF		0.00	--	--	0.01		--	0.00	--
1300	5050	0		7.6				--	--	--	0.0		--	0.00
09/21/85	5050		7.8C	78	1AF		0.01	--	--	0.01		--	0.00	--
1300	5050	62		7.3				--	--	--	0.0		--	0.00
09/18/85	5050		18.6C	89	1AF		0.01	--	--	0.03		--	0.00	--
1015	5050	0		7.6				--	--	--	0.0		--	0.01
09/18/85	5050		9.3C	78	1AF		0.01	--	--	0.01		--	0.00	--
1015	5050	75		7.0				--	--	--	0.1		--	0.01
	F4	1080.00		TRINITY R A HOOPA									F06A1	
08/05/85	5050	12.14	22.0C	160	1AF		0.00	--	--	--		--	0.00	--
0940	5050	779		7.8				--	--	--	0.0		--	0.01
	F4	1640.00		TRINITY R A LEWISTON									F06C1	
08/05/85	5050	3.95	11.0C	82	1AF		0.00	--	--	--		--	0.00	--
0730	5050	455		7.5				--	--	--	0.0		--	0.00
	F6	3009.01		EEL R NF A DOS RIOS									F11D2	
10/24/84	5050	6.78	13.0C	275	1AF		0.00	--	--	--		--	0.00	--
1030	5050	83		8.1				--	--	--	0.1		--	0.01
04/17/85	5000	8.96	13.0C	137	4AF		0.00	--	--	--		--	0.01	--
1133	5050	1550		7.7				--	--	--	0.2		--	0.01
	F6	3050.00		MILL C NR COVELO									F11G1	
02/06/85	5050		8.0C	321	1AF		0.01	--	--	--		--	0.01	--
1440	5050	40 E		8.3				--	--	--	0.3		--	0.02
	F6	3200.00		BLACK BUTTE R NR COVELO									F11G1	
10/24/84	5050		14.0C	403	1AF		0.00	--	--	--		--	0.00	--
1140	5050	10 E		7.9				--	--	--	--		--	--
02/06/85	5050		6.0C	201	2AF		0.01	--	--	--		--	0.01	--
1400	5050	125 E		7.7				--	--	--	0.2		--	0.01
04/17/85	5050		12.0C	136	4A		0.01	--	--	--		--	0.01	--
1329	5050	70 E		7.6				--	--	--	0.1		--	0.02
	F6	4100.00		EEL R SF NR MIRANDA									F11C2	
10/24/84	5050	4.85	13.5C	245	1AF		0.00	--	--	--		--	0.00	--
0800	5050	120		7.8				--	--	--	0.1		--	0.02
	F6	5279.00		VAN DUZEN R NR BRIDGEVILLE									F11R3	
10/23/84	5050	2.41	12.5C	234	2AF		0.00	--	--	--		--	0.00	--
0915	5050	67		7.9				--	--	--	--		--	--
04/16/85	5050	3.82	13.0C	141	2A		0.03	--	--	--		--	0.00	--
1030	5050	372		7.5				--	--	--	0.0		--	0.01
	F7	1100.00		MATTOLE R NR PETROLIA									F12C0	
10/23/84	5050	3.98	15.5C	257	1AF		0.00	--	--	--		--	0.00	--
1240	5050	92		8.3				--	--	--	--		--	--
04/16/85	5050	4.79	15.0C				0.02	--	--	--		--	0.02	--
1345	5050			8.0				--	--	--	0.0		--	0.02
	F7	5100.00		BEAR R A CAPETOWN									F12A0	
10/23/84	5050		15.0C	321	1AF		0.00	--	--	--		--	0.00	--
1120	5050	18 E		8.1				--	--	--	--		--	--
04/16/85	5050		14.0C	202	1A		0.12	--	--	--		--	0.01	--
1235	5050	80 E		8.0				--	--	--	0.0		--	--

APPENDIX D

GROUND WATER MEASUREMENTS


(EXAMPLE) TOWNSHIP 39N/13E (M)
Figure 6
TOWNSHIP AND RANGE SYSTEM
OF CALIFORNIA
SCALE
0 10 20 30 40 50 MILES
DIAGRAM OF A TOWNSHIP
(36 SECTIONS)
TOWNSHIP LINE
RANGE LINE
DIAGRAM OF A SECTION
(16 TRACTS)
D C B A
E F G H
M L K J
N P Q R
HUMBOLDT MERIDIAN
HUMBOLDT BASE
MT. DIABLO MERIDIAN
MT. DIABLO BASE
SAN BERNARDINO MER.
SAN BERNARDINO BASE
SISKIYOU
MODOC
SHASTA
LASSEN
TEHAMA
PLUMAS
GLENN
BUTTE
SIERRA
COLUSA
LAKE
NAPA
SONOMA
MARIN
SUTTER
YUBA
NEVADA
PLACER
EL DORADO
ALPINE
AMADOR
CALAVERAS
TUOLUMNE
SACRAMENTO
SOLANO
SAN JOAQUIN
STANISLAUS
MERCED
MARIPOSA
MADERA
FRESNO
TULARE
KINGS
KERN
SAN LUIS OBISPO
SANTA BARBARA
VENTURA
LOS ANGELES
ORANGE
SAN DIEGO
IMPERIAL
RIVERSIDE
SAN BENITO
SANTA CLARA
SAN MATEO
SAN FRANCISCO
MONTEREY
N

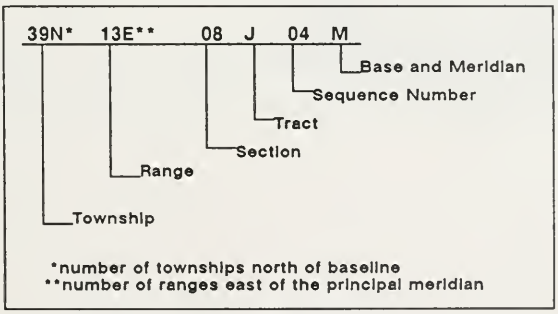
APPENDIX D
GROUND WATER MEASUREMENTS

Appendix "D" presents depth to water measurements (ground to water) and water surface elevations for selected wells in the North Coastal Area from October 1, 1984 to September 30, 1985.

The location of a well can be approximated by the well number. The numbering system for wells is based on a rectangular system called the United States System of Surveying the Public Lands, commonly referred to as the Public Lands Survey. This system ties all tracts of lands to an initial point and identifies them as being in a particular township. A township is a square parcel of land six miles on each side. Its location is established as being so many six-mile units east or west of a north-south line running through the initial point (called the "principal meridian") and so many six-mile units north or south of an east-west line running through the point (called the "baseline"). The meridianal (longitudinal) lines parallel to, and east or west of, the principal meridian are called Range Lines. Latitudinal lines parallel to, and north or south of, the baseline are known as Township Lines. Each township is described with respect to the initial point by its distance (in numbers of six mile units) and direction from that point i.e., north or south and east or west.

Figure 6 presents the township and range system for California, and shows the three bases and meridians: i.e., the Humboldt (H), Mount Diablo (M) and San Bernardino (S). The figure also numbers the townships and ranges along the principal meridians and baselines, and shows the location of, for example, township 39N/13E M. The location of any township in the State can be found by extending the township and range lines as shown.

Every township is further divided into 36 equal parts called sections. A diagram of a typical township with the sections numbered from 1 to 36 is shown on Figure 6. The well numbering system is an extension of the public land survey system and involves dividing each section of land into sixteen 40-acre tracts with each tract given a letter (A through R) to identify it (see also Figure 6.) Sequence numbers in a tract are assigned in chronological order. A typical well number consists of 12 characters expressed as expressed as follows:



In the above example, this is the fourth well to be assigned a number in Tract J, Section 8 of the designated township.

Ground water measurement stations are listed in the tables by ascending areal code. The areal code is explained on page 2. Individual areal code numbers can be found in the tables to the left of the areal

names, and the data listed thereunder are in that areal code boundary. The number of ground water stations precludes plotting each individual well on maps in this publication. Instead, Figure 7 shows the location of the ground water basins in which measurements were taken.

To facilitate station location, the cross reference on the following page relates the areal code given in the tables to the ground water basin in which the station is located. The cross reference lists only areas in which measurements were taken.

The date shown in the table is the date when the depth measurement was made.

Some of the measurements in the "ground to water" column may be followed by a single digit in parenthesis which indicates a questionable measurement. The meaning of these codes is as follows:

(0)	Caved or deepened	(5)	Air or pressure gage measurement
(1)	Pumping	(6)	Other
(2)	Nearby pump operating	(7)	Recharge operation at or near well
(3)	Casing leaking or wet	(8)	Oil in casing
(4)	Pumped recently	(9)	Acoustic Sounder

When the letters "NM" followed by a digit in parenthesis appears in the column, it means a measurement was attempted but could not be obtained. The reason for no measurement is described by the digit listed below:

(0)	Measurement Discontinued	(5)	Unable to locate well
(1)	Pumping	(6)	Well has been destroyed
(2)	Pump house locked	(7)	Special
(3)	Tape hung up	(8)	Casing leaking or wet
(4)	Cannot get tape in casing	(9)	Temporarily inaccessable

The words "FLOW" and "DRY" also appear in this column to indicate a flowing or dry well, respectively. A minus sign preceding the number indicates that the static water level in the flowing well is this distance in feet above the ground surface.

Elevations are given in feet at USGS mean sea level datum, and are usually obtained by interpolation between contours of USGS topographic maps.

The final column is the code number for the agency supplying the data. The code for the California Department of Water Resources is 5050.

APPENDIX D CROSS REFERENCE; GROUND WATER BASIN—AREAL CODE

Ground Water Basin No.	Name	Hydrologic Area*		Areal Code**
		SMITH RIVER	HU	
		Lower Smith River	HA	
1-1	Smith River Plain	Smith River Plain	HSA	F-03.A1
		KLAMATH RIVER	HU	
1-3	Butte Valley	Butte Valley	HA	
		Macdoel-Dorris	HSA	F-05.H1
1-4	Shasta Valley	Shasta Valley	HA	F-05.E
		Scott River	HA	
1-5	Scott River Valley	Scott Valley	HSA	F-05.A1
1-14	Lower Klamath River Valley	Lower Klamath River	HA	
		Klamath Glen	HSA	F-05.A1
1-9	Eureka Plain	EUREKA PLAIN	HU	F-10
		EEL RIVER	HU	
1-10	Eel River Valley	Lower Eel River	HA	
		Ferndale	HSA	F-11.A1
		Middle Fork Eel River	HA	
1-11	Round Valley	Round Valley	HSA	F-11.G2
		South Fork Eel River	HA	
1-12	Laytonville Valley	Laytonville	HSA	F-11.C3
1-42	Sherwood Valley	Upper Main Eel River	HA	
		Outlet Creek	HSA	F-11.F1
1-26	Redwood Creek Valley	REDWOOD CREEK	HU	
		Orick	HA	F-07.A
		TRINIDAD	HU	
		Big Lagoon	HA	F-08.A

Note: All of the above hydrologic areas are in the North Coast Hydrologic Basin (HB)

* See page 2
** See Figure 2

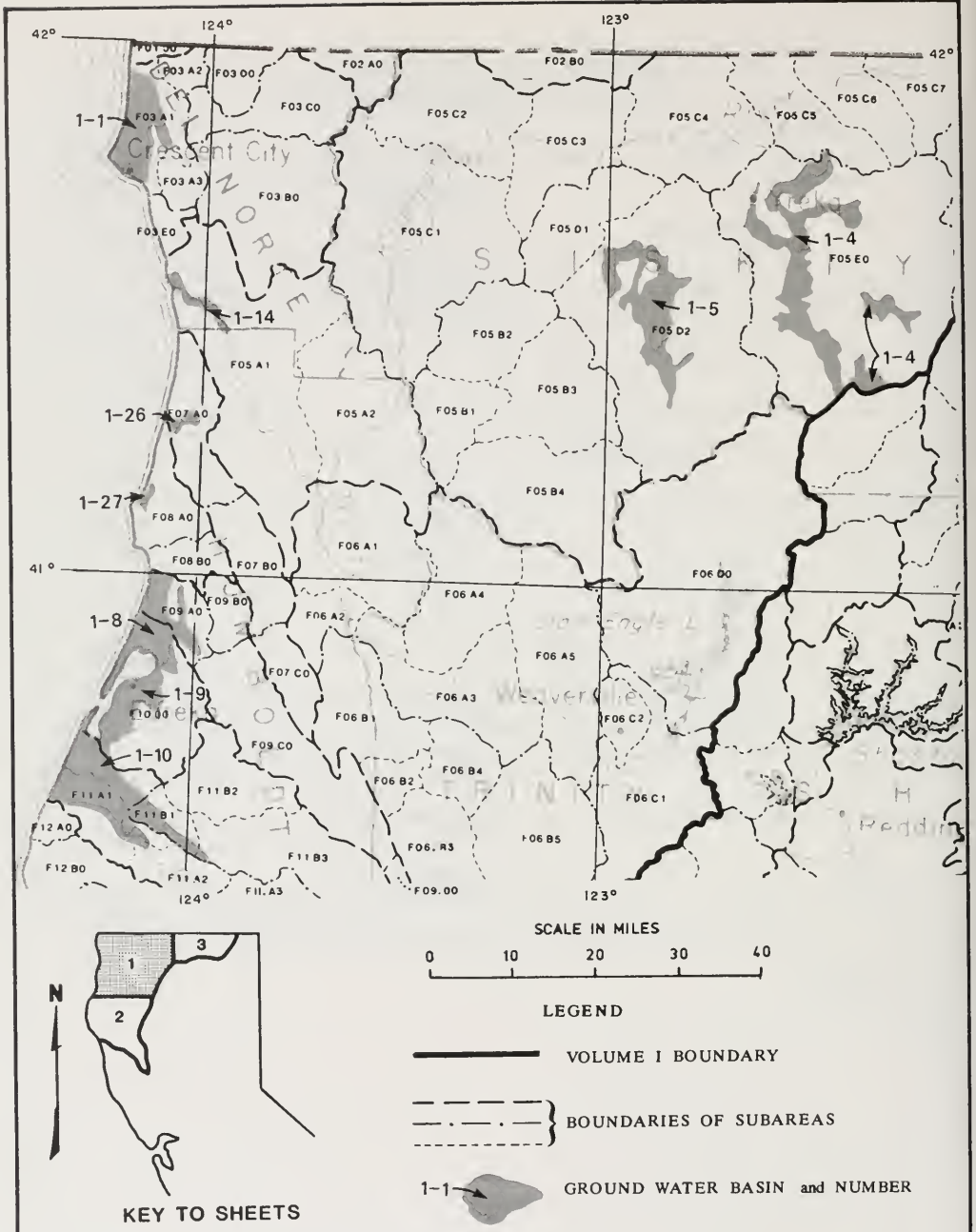


Figure 7 LOCATION OF GROUND WATER BASINS - MEASUREMENT

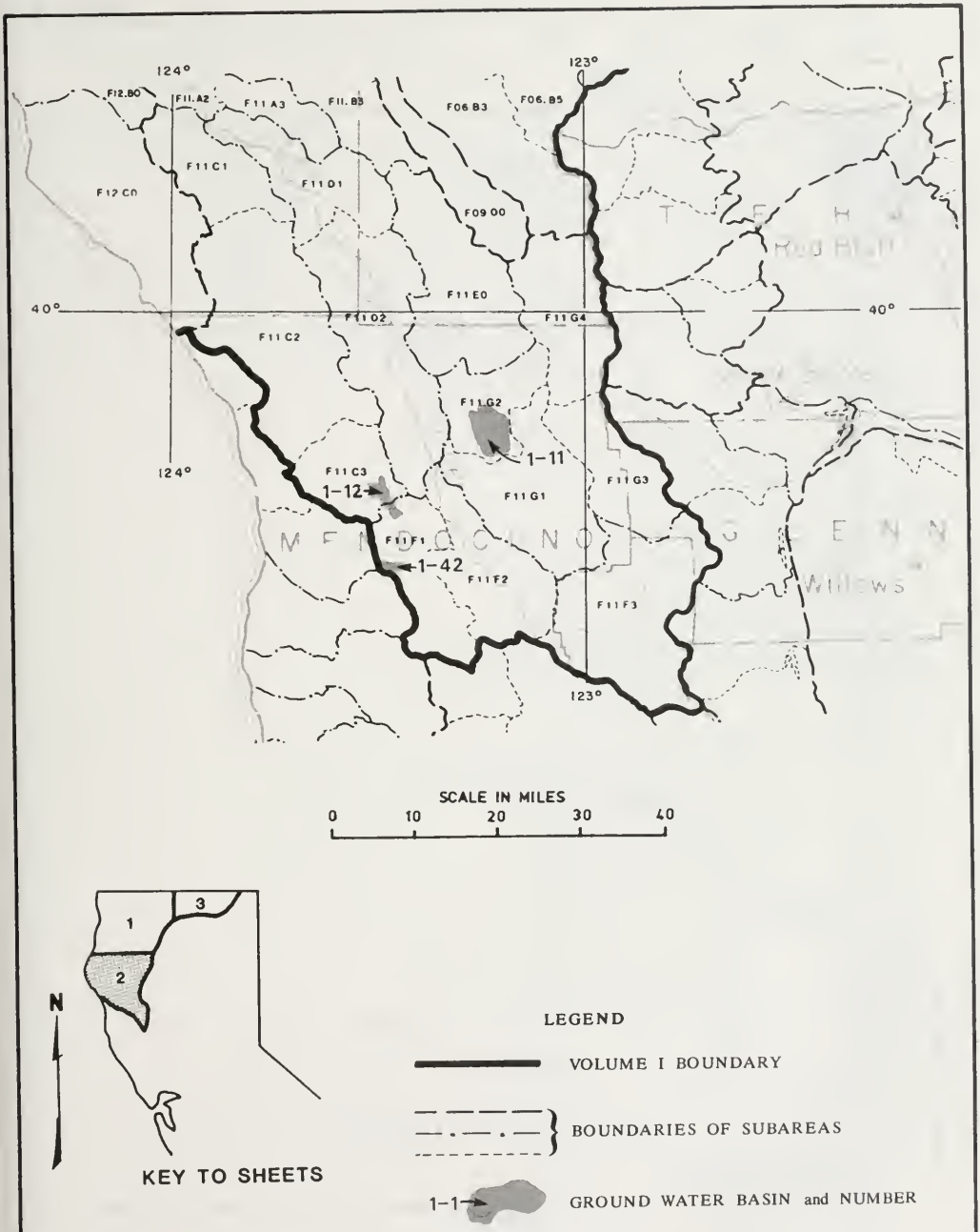
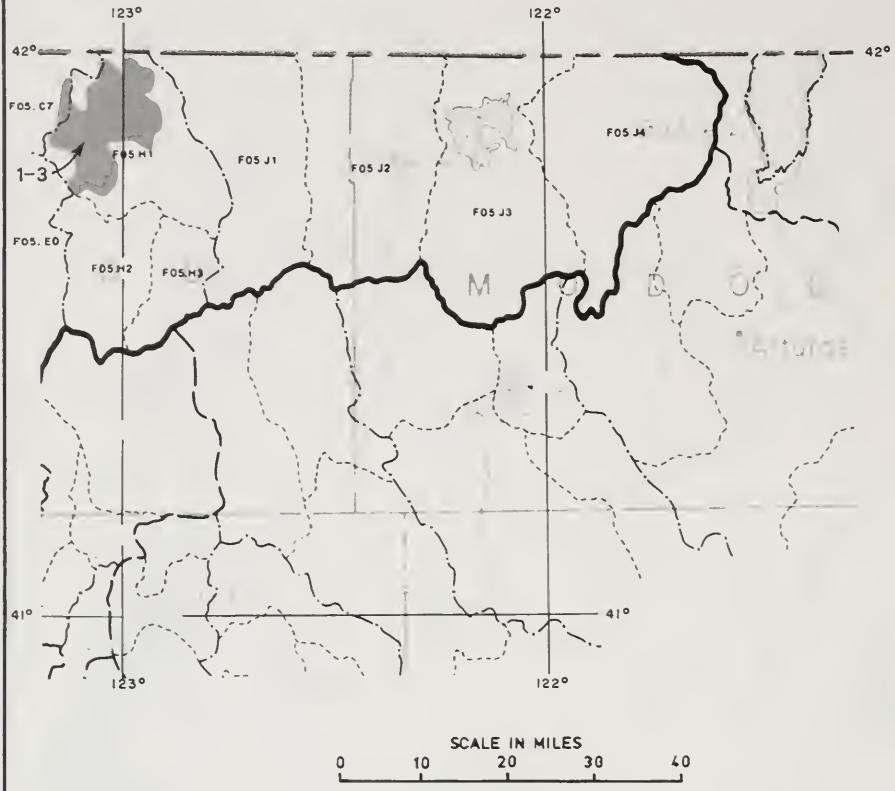
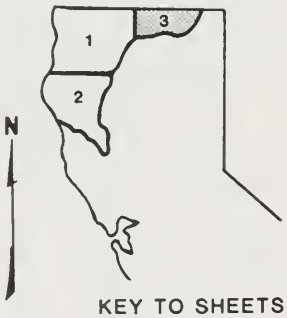


Figure 7 LOCATION OF GROUND WATER BASINS - MEASUREMENT





LEGEND

VOLUME I BOUNDARY

BOUNDARIES OF SUBAREAS

1-1 GROUND WATER BASIN and NUMBER

Figure 7 LOCATION OF GROUND WATER BASINS - MEASUREMENT

TABLE 8

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE ELEV.	AGENCY
F NORTH COAST HA					
F-03 SMITH RIVER HU					
F-03.A LOWER SMITH RIVER HA					
F-03.A1 SMITH RIVER PLAIN HSA					
16N/01W-17K01 M	44.0	10/29/84	21.8	26.2	5050
		03/13/85	17.0	31.0	
17N/01W-02P01 M	31.0	10/29/84	19.8	11.2	5050
		03/13/85	14.1	16.9	
17N/01W-15M02 M	21.0	10/29/84	12.6	8.4	5050
		03/13/85	10.6	13.4	
17N/01W-20Q01 M		03/13/85	MM-0		5050
17N/01W-27Q05 M	40.0	10/29/84	18.5	21.5	5050
		03/13/85	12.3	27.7	
18N/01W-27P03 M	15.0	10/29/84	6.7	8.3	5050
		03/13/85	7.4	7.6	
18N/01W-35R02 M	90.0	10/29/84	33.9	56.1	5050
		03/13/85	24.7	65.3	
13N/01E-15R01 M	50.0	10/29/84	16.7	33.3	5050
		03/13/85	16.2	33.8	
F-05.0 SCOTT RIVER HA					
F-05.02 SCOTT VALLEY HSA					
42N/09W-02A02 M	2746.0	10/30/84	12.8	2733.2	5050
		03/15/85	11.0	2735.0	
42N/09W-27N01 M	2930.0	10/30/84	8.3	2921.7	5050
		03/15/85	8.0	2922.0	
43N/09W-23F01 M	2729.0	10/30/84	6.0	2722.0	5050
		03/15/85	4.4	2723.6	
43N/09W-24FC1 M	2735.0	10/30/84	9.9	2725.1	5050
		03/15/85	11.5	2723.5	
44N/09W-28P01 M	2711.0	10/30/84	28.2	2682.8	5050
		03/15/85	15.3	2695.7	
F-05.E SHASTA VALLEY HA					
42N/05W-20JC1 M	2882.0	10/30/84	8.8	2873.2	5050
		03/14/85	8.2	2873.8	
42N/06W-10JC1 M	2835.0	10/30/84	9.9	2825.1	5050
		03/14/85	7.6	2827.4	
43N/05W-11A01 M	2740.0	10/30/84	126.6	2613.4	5050
		03/14/85	125.7(8)	2614.3	
43N/06W-15F03 M	2663.0	10/30/84	12.5	2650.5	5050
		03/14/85	7.7	2655.3	
43N/06W-22A01 M	2669.0	10/30/84	12.0	2653.0	5050
		03/14/85	9.5	2659.5	
43N/06W-33C01 M	2810.0	10/30/84	47.0	2763.0	5050
		03/14/85	46.5	2763.5	
44N/05W-34H01 M	2637.0	10/30/84	28.3(8)	2608.7	5050
		03/14/85	30.0(8)	2607.0	
44N/06W-10F01 M	2537.0	10/30/84	18.2	2518.8	5050
		03/14/85	27.0	2510.0	
44N/06W-27B01 M	2560.0	10/30/84	11.8	2548.2	5050
		03/14/85	14.5	2545.5	
F-05.H BUTTE VALLEY HA					
F-05.H1 MACDOEL-DORRIS HSA					
46N/01E-06N01 M	4242.0	10/31/84	29.6	4212.4	5050
		03/19/85	25.2	4216.8	
46N/01E-08C01 M	4260.0	10/25/84	42.6	4217.4	5050
		04/15/85	42.5	4217.5	
46N/01E-08P01 M	4250.0	10/25/84	31.5	4218.5	5050
		04/15/85	30.2	4219.8	
47N/01E-05E01 M	4250.0	10/25/84	90.8(8)	4159.2	5050
		04/15/85	84.6(8)	4165.4	
47N/01E-06A02 M	4244.5	10/31/84	40.6	4203.9	5050
		03/19/85	38.3	4206.2	
47N/01E-20D01 M	4243.0	10/25/84	38.1(8)	4204.9	5050
		04/15/85	29.3(8)	4210.7	
47N/01E-29H02 M		10/25/84	MM-0		5050
		04/15/85	MM-8		
45N/01W-06A01 M	4258.0	10/31/84	40.1	4217.9	5050
		03/19/85	31.7	4226.3	
45N/02W-04BC1 M	4260.0	10/25/84	24.1	4235.9	5050
		04/15/85	19.9(8)	4240.1	
45N/02W-11P01 M	4275.0	10/31/84	46.8	4228.2	5050
		03/19/85	43.9	4231.1	
46N/01W-01D01 M	4241.0	10/25/84	47.9(3)	4193.1	5050
		04/15/85	33.9	4207.1	
46N/01W-04N02 M	4218.0	10/25/84	18.8	4219.2	5050
		04/15/85	17.3	4220.7	
46N/01W-09P01 M		10/25/84	MM-3		5050
	4400.0	04/15/85	180.0	4220.0	
46N/01W-10K01 M	4360.0	10/25/84	157.5	4202.5	5050
		04/15/85	157.0	4203.0	
46N/01W-17R01 M	4244.0	10/31/84	42.8	4203.2	5050
		03/19/85	34.2	4211.8	
46N/01W-17P01 M	4250.0	10/25/84	29.1	4220.9	5050
		04/15/85	22.7	4227.3	
46N/01W-18Q01 M	4247.0	10/31/84	29.3	4217.7	5050
		03/19/85	23.7	4223.3	
46N/01W-20NC1 M	4254.0	10/25/84	37.4	4220.6	5050
		04/15/85	32.0	4226.0	
46N/01W-20NC2 M	4254.0	10/25/84	30.9(8)	4225.1	5050
		04/15/85	MM-3		

TABLE D (CONTINUED)

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE ELEV.	AGENCY
F NORTH COAST HB F-05 KLAMATH RIVER HU F-05.M BUTTE VALLEY HA F-05.H1 MACDOEL-DORRIS HSA					
46N/01W-31J01 M	4247.0	10/29/84	36.9	4220.2	5050
		04/15/85	30.7	4224.3	
46N/02W-25H01 M	4242.0	10/25/84	9.2	4232.8	5050
		04/15/85	9.5	4232.5	
46N/02W-25R02 M	4256.0	10/31/84	35.0	4219.1	5050
		03/19/85	29.4	4226.6	
46N/02W-26L02 M	4249.0	10/29/84	13.8	4235.2	5050
		04/15/85	10.0	4239.0	
46N/02W-26Q01 M	4254.0	10/31/84	16.5	4237.5	5050
		03/19/85	13.9	4240.1	
46N/02W-34R02 M	4300.0	10/25/84	52.3(8)	4247.7	5050
		04/15/85	53.8(8)	4246.2	
46N/02W-35C01 M	4285.0	10/25/84	24.1	4230.9	5050
		04/15/85	19.0	4236.0	
46N/02W-35R01 M	4260.0	10/25/84	30.0	4230.0	5050
		04/15/85	24.3(8)	4235.7	
47N/01W-02J01 M	4240.0	10/25/84	40.5(8)	4199.5	5050
		04/15/85	32.0(8)	4208.0	
47N/01W-04N01 M	4241.5	10/31/84	5.5	4236.0	5050
		03/19/85	3.2	4238.3	
47N/01W-04N02 M	4241.5	10/31/84	7.2	4234.3	5050
		03/19/85	6.2	4235.3	
47N/01W-13C01 M	4240.0	10/25/84	21.5	4218.5	5050
		04/15/85	20.0	4220.0	
47N/01W-13J01 M	4235.0	10/25/84	12.8	4222.2	5050
		04/15/85	12.3	4222.7	
47N/01W-19L01 M	4238.0	10/31/84	4.3	4233.7	5050
		03/19/85	4.0	4234.0	
47N/01W-23H01 M	4235.0	10/25/84	10.7	4224.3	5050
		04/15/85	10.2	4224.8	
47N/01W-23H02 M	4234.0	10/25/84	16.5	4217.5	5050
		04/15/85	14.1	4219.9	
47N/01W-23H03 M		10/25/84	NM-5		5050
	4237.0	04/15/85	12.4	4224.6	
47N/01W-27R01 M	4233.0	10/31/84	9.3	4224.7	5050
		03/19/85	6.9	4226.1	
47N/01W-34DC1 M	4237.0	10/31/84	27.4(8)	4209.2	5050
		03/19/85	22.9(8)	4214.1	
47N/01W-35L01 M	4235.0	10/25/84	16.1(8)	4218.9	5050
		04/15/85	15.1	4219.9	
47N/02W-21R01 M		10/25/84	NM-9		5050
	4240.0	04/15/85	7.7(8)	4232.3	
47N/02W-22Q01 M	4245.0	10/25/84	17.1	4227.9	5050
		04/15/85	12.8	4232.2	
47N/02W-23L01 M	4239.0	10/25/84	13.9(8)	4225.2	5050
		04/15/85	11.0	4228.0	
48N/01W-25P01 M	4240.0	10/25/84	71.8	4168.2	5050
		04/15/85	68.2	4171.8	
48N/01W-26EU1 M	4299.0	10/25/84	93.0(8)	4196.0	5050
		04/15/85	94.0(8)	4205.0	
48N/01W-28F01 M		10/25/84	NM-2		5050
	4247.0	04/15/85	23.8	4223.2	
48N/01W-28J01 M	4254.0	10/25/84	43.1	4211.9	5050
		04/15/85	37.4	4217.6	
48N/01W-28J02 M	4250.0	10/25/84	42.7	4207.3	5050
		04/15/85	35.8	4214.2	
48N/01W-34R01 M	4299.0	10/25/84	91.5	4194.5	5050
		04/15/85	93.6	4202.4	
48N/01W-34GC1 M	4289.0	10/25/84	71.9	4269.5	5050
		04/15/85	72.0	4217.4	
48N/01W-34M02 M	4288.0	10/25/84	84.5(8)	4209.5	5050
		04/15/85	83.9	4194.1	

STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE ELEV.	AGENCY
F NORTH COAST HB F-07 REDWOOD CREEK HU F-07.A ORICK HA					
10N/01E-04C01 M	21.0	10/29/84	15.0	6.0	5050
		03/13/85	13.7	7.3	
11N/01E-02P01 M	170.0	10/29/84	12.3	157.7	5050
		03/13/85	12.3	157.7	

TABLE 8 (CONTINUED)

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE ELEV.	AGENCY
F NORTH COAST HA					
F-08 TRINIDAD HU					
F-08.A BIG LAGOON HA					
09N/01W-24C01 H	105.0	10/29/84	27.8	77.2	5050
		03/13/85	23.2	81.8	
F NORTH COAST HA					
F-10 EUREKA PLAIN HU					
06N/01E-07M01 H	11.0	10/24/84	7.5	3.5	5050
		03/13/85	4.6	6.4	
06N/01E-17Q01 H	21.0	10/24/84	15.6	5.4	5050
		03/13/85	10.3	10.7	
06N/01E-19Q01 H	19.0	10/24/84	13.5	5.5	5050
		03/13/85	9.8	9.2	
04N/01W-16H01 H	10.0	10/24/84	18.0(4)	-8.0	5050
		03/13/85	16.0	-6.0	

TABLE D (CONTINUED)

GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE ELEV.	AGENCY
F	NORTH COAST HA				
F-11	EEL RIVER HU				
F-11.A	LOWER EEL RIVER HA				
F-11.A1	FERNDALE HSA				
02N/01W-04R01 H	34.0	10/24/84	23.6	10.4	5050
		03/12/85	18.7	15.3	
03N/01W-18N01 H	19.0	10/24/84	9.0	9.0	5050
		03/12/85	5.0	10.0	
03N/01W-30N01 H	15.0	10/24/84	16.3	-1.3	5050
		03/12/85	13.4	1.6	
03N/01W-34J01 H	43.0	10/24/84	NM-2		5050
		03/12/85	NM-2		
03N/02W-11J01 H	10.0	10/24/84	7.0	3.0	5050
		03/12/85	5.0	5.0	
03N/02W-35M02 H	13.0	10/24/84	10.1	2.9	5050
		03/12/85	6.3	6.7	
F-11.C	SOUTH FORK EEL RIVER HA				
F-11.C3	LAYTONVILLE HSA				
21N/14W-3CM01 M	1688.0	10/23/84	16.5	1671.5	5050
		03/12/85	3.6	1684.4	
21N/15W-01L02 M	1682.0	10/23/84	20.0	1662.0	5050
		03/12/85	8.0	1674.0	
21N/15W-12M02 M	1630.0	10/23/84	17.6	1613.0	5050
		03/12/85	4.8	1625.2	
21N/15W-24A01 M	1653.0	10/23/84	13.0	1640.0	5050
		03/12/85	2.4	1650.6	
F-11.F	UPPER MAIN EEL RIVER HA				
F-11.F1	OUTLET CREEK HSA				
18N/13W-04L01 M	1340.0	10/23/84	8.2	1331.8	5050
		03/12/85	.6	1339.4	
18N/13W-17J01 M	1370.0	10/23/84	13.6	1356.4	5050
		03/12/85	3.9	1366.1	
18N/13W-18EC1 M	1365.0	10/23/84	21.7	1343.3	5050
		03/12/85	19.0	1346.0	
18N/13W-20H04 M	1385.0	10/23/84	15.0	1370.0	5050
		03/12/85	1.3	1383.7	
19N/13W-32F01 M	1347.0	10/23/84	12.5	1334.5	5050
		03/12/85	5.2	1341.8	
19N/13W-32L02 M	1350.0	10/23/84	12.5	1337.5	5050
		03/12/85	5.5	1344.5	
19N/13W-32L03 M	1345.0	10/23/84	12.0	1333.0	5050
		03/12/85	4.9	1340.1	
F-11.G	MIDDLE FORK EEL RIVER HA				
F-11.G2	BRUNO VALLEY HSA				
22N/12W-04A01 M	1351.0	10/23/84	16.9	1334.1	5050
		03/12/85	6.1	1344.9	
22N/12W-04E07 M	1395.0	10/23/84	16.6	1378.4	5050
		03/12/85	3.9	1391.1	
22N/12W-06L03 M	1370.0	10/23/84	3.6	1366.1	5050
		03/12/85	-5.5	1375.5	
22N/12W-17D01 M	1351.0	10/23/84	13.6	1337.4	5050
		03/12/85	5.9	1345.1	
22N/13W-01F01 M	1420.0	10/23/84	30.0	1390.0	5050
		03/12/85	6.9	1413.1	
22N/13W-12K01 M	1393.0	10/23/84	29.8	1365.2	5050
		03/12/85	7.2	1387.8	
22N/13W-12R01 M	1400.0	10/23/84	26.7	1373.3	5050
		03/12/85	8.9	1391.1	
23N/12W-29P03 M	1360.0	10/23/84	9.9	1350.1	5050
		03/12/85	2.0	1358.0	
23N/13W-36C03 M	1410.0	10/23/84	31.6	1378.4	5050
		03/12/85	10.5	1399.5	

APPENDIX E

GROUND WATER QUALITY

APPENDIX E
GROUND WATER QUALITY

Appendix E presents the results of mineral analyses of ground water samples collected in the North Coastal Area from October 1, 1984 to September 30, 1985. The number of ground water stations precludes plotting each individual location on a map in this publication. Instead, the location of the basins from which the samples were obtained are shown in Figure 8.

The well data are grouped by areal code. The areal code is explained on page 2. Individual areal code numbers can be found in the tables to the left of the areal names. The wells listed thereunder are in that areal code boundary. Each new code is in ascending order. To facilitate station location, a cross reference on the following page relates the areal code given in the tables to the ground water basin in which the station is located.

The location of a well can be approximated by the well number. The numbering system for the wells is based on township, range, and section subdivisions of the public land survey as described in Appendix D, page 67.

In order to increase the amount of information in the water quality tables, multiple headings are used at the top of the column, and data are tabulated respectively. For example, the first column of Table E showns the date of sampling printed above the time of sampling so the data are tabulated in that order. If a part of the values for a multiple heading column are obtained, they will appear in the column with respect to the heading positions. If dashes (or no data) appear in a column, it means no data was obtained.

Abbreviations and codes used in the table are explained on page 84.

APPENDIX E CROSS REFERENCE; GROUND WATER BASIN—AREAL CODE

Ground Water Basin No.	Name	Hydrologic Area*		Areal Code**
		SMITH RIVER	HU	
		Lower Smith River	HA	
1-1	Smith River Plain	Smith River Plain	HSA	F-03.A1
		KLAMATH RIVER	HU	
1-3	Butte Valley	Butte Valley	HA	
		Macdoel-Dorris	HSA	F-05.H1
1-4	Shasta Valley	Shasta Valley	HA	F-05.E
		Scott River	HA	
1-5	Scott River Valley	Scott Valley	HSA	F-05.D2
		TRINITY RIVER	HU	
		South Fork Trinity River	HA	
1-6	Hayfork Valley		HSA	F-06.B5
		MAD RIVER	HU	
1-8	Mad River Valley	Blue Lake	HA	F-09.A
1-9	Eureka Plain	EUREKA PLAIN	HU	F-10
		EEL RIVER	HU	
1-10	Eel River Valley	Lower Eel River	HA	
		Ferndale	HSA	F-11.A1
		Middle Fork Eel River	HA	
1-11	Round Valley	Round Valley	HSA	F-11.G2
		South Fork Eel River	HA	
1-12	Laytonville Valley	Laytonville	HSA	F-11.C3
1-42	Sherwood Valley	Upper Main Eel River	HA	
		Outlet Creek	HSA	F-11.F1

Note: All of the above hydrologic areas are in the North Coast Hydrologic Basin (HB).

*See page 2.
**See Figure 2.

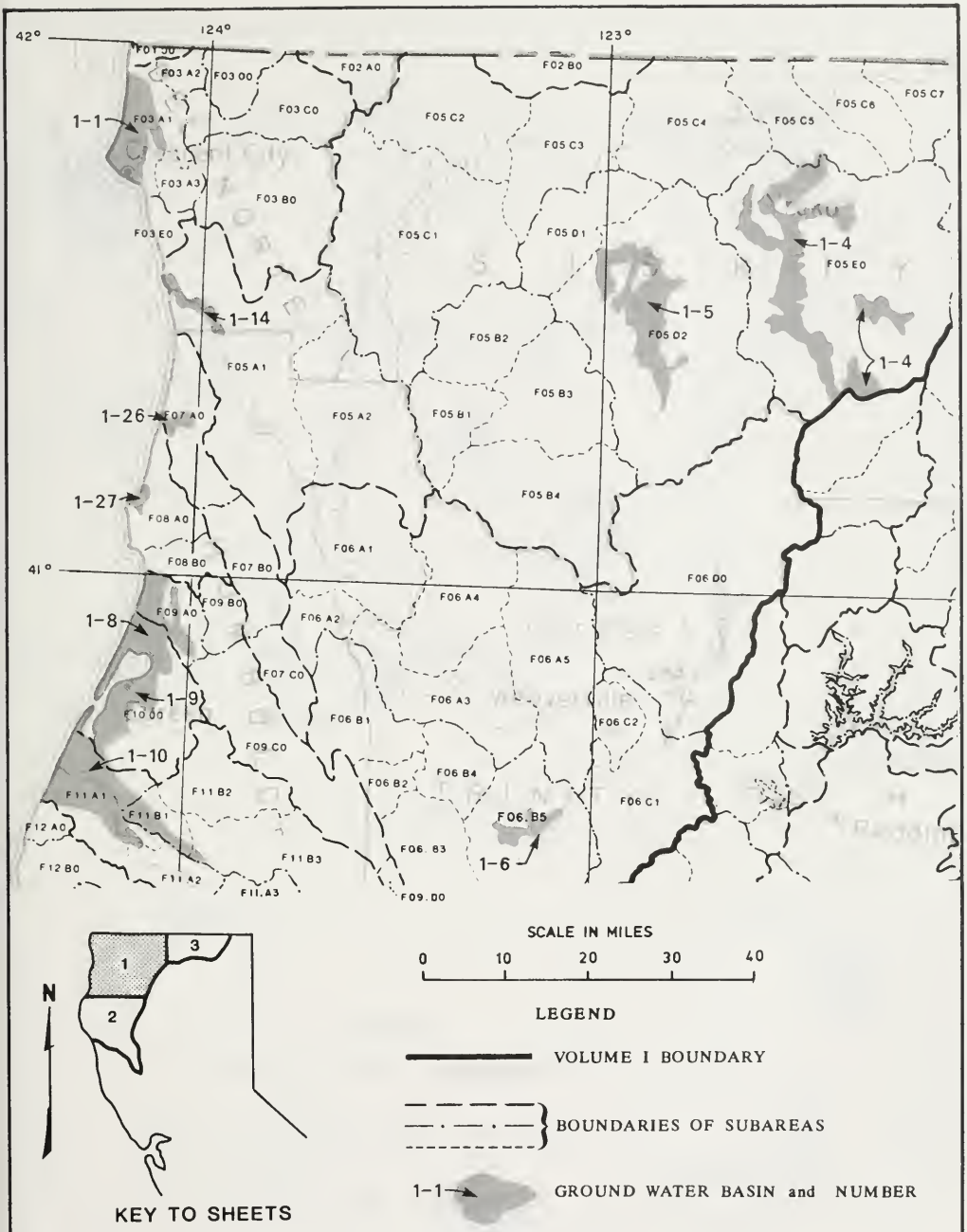


Figure 8 LOCATION OF GROUND WATER BASINS - QUALITY

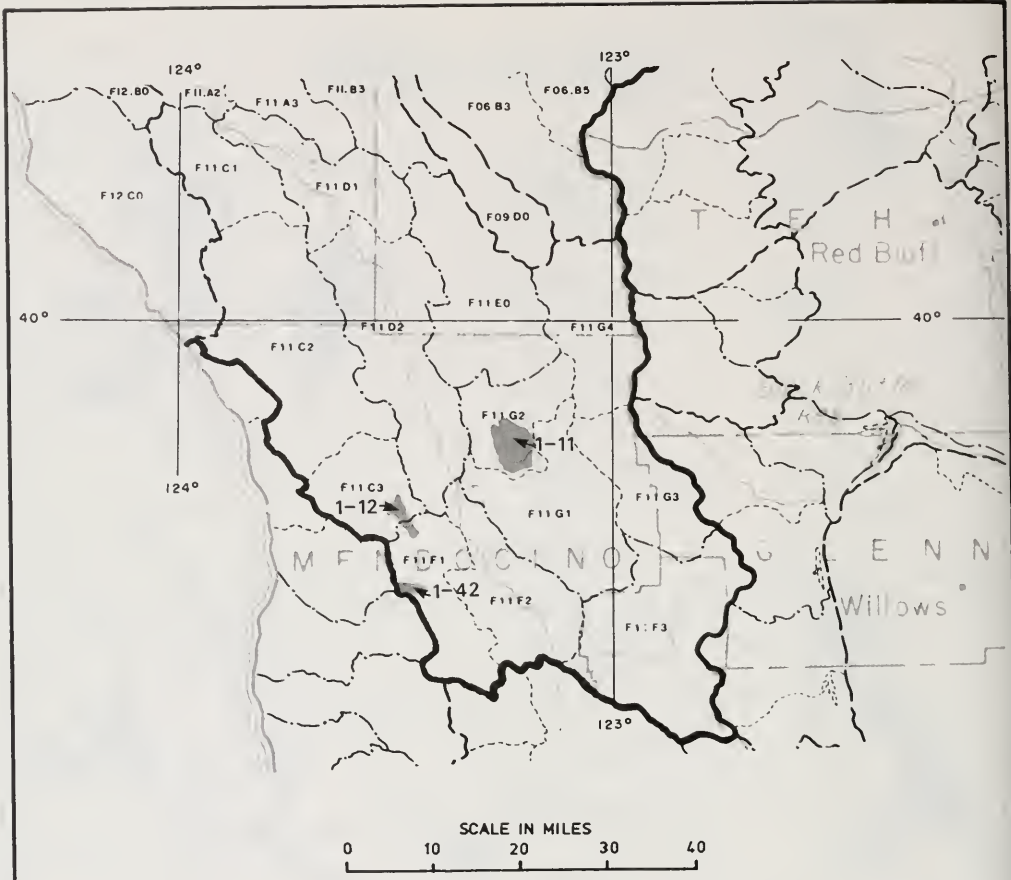
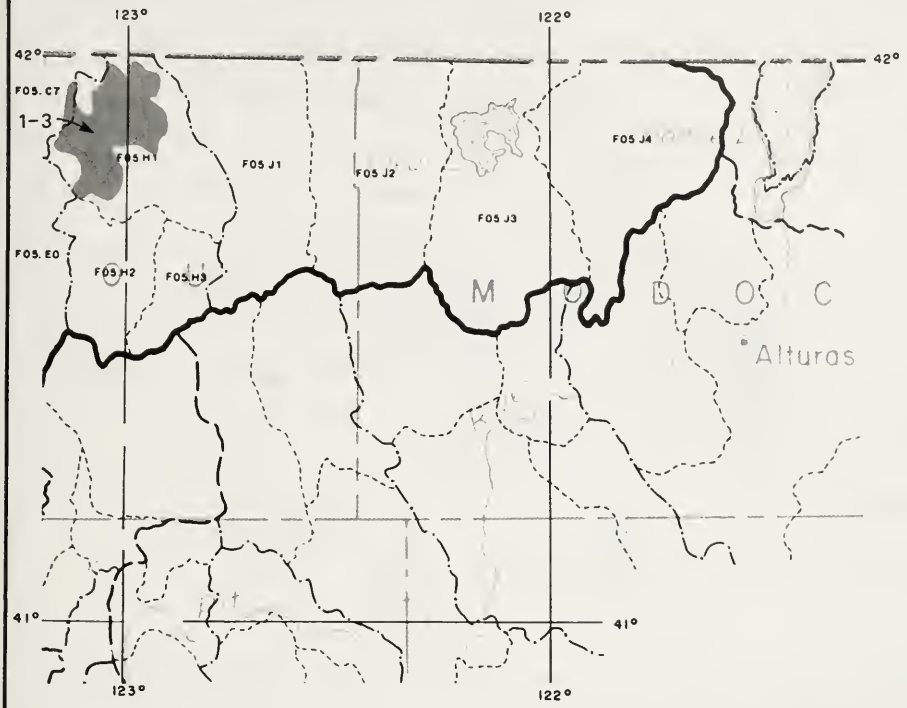
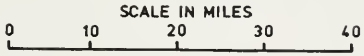


Figure 8 LOCATION OF GROUND WATER BASINS - QUALITY





LEGEND

VOLUME I BOUNDARY

BOUNDARIES OF SUBAREAS

1-1 GROUND WATER BASIN and NUMBER

Figure 8 LOCATION OF GROUND WATER BASINS - QUALITY

TABLE E
MINERAL ANALYSES OF GROUND WATER

Lab and Sampler Agency Code

5050 – Department of Water Resources

Abbreviations and Constituents

TIME	–	Pacific Standard Time on a 24-hour clock
G. H.	–	Instantaneous gage height in feet above an established datum
Q	–	Instantaneous discharge in cubic feet per second (E = Estimated)
DO	–	Dissolved oxygen content in milligrams per liter
SAT	–	Percent of normal dissolved oxygen saturation
TEMP	–	Water temperature at time of sampling in degrees Fahrenheit (F) or Celcius (C)
Field	–	Determined in the field
Laboratory	–	Determined in the laboratory
pH	–	Measure of acidity or alkalinity of water
EC	–	Electrical conductance in microseimens at 25°C

Constituents:

B	–	Boron	K	–	Potasasium
CA	–	Calcium	MG	–	Magnesium
CACO3	–	Calcium Carbonate	NA	–	Sodium
CL	–	Chloride	NO3	–	Nitrate
F	–	Fluoride	SIO2	–	Silica
			SO4	–	Sulfate

Boron, Fluoride, and Silica are reported in milligrams per liter. The other minerals are reported in each of three units: milligrams per liter, milliequivalents per liter, and percent reactance value; accordingly, each observation can use three lines of tabulation.

MILLIEQUIVALENTS PER LITER is the concentration in Mg/l divided by the equivalent weight of the ion.

PERCENT REACTANCE VALUE is determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter, arriving at a percentage.

TURB	–	Jackson Turbidity Units measured with a Hach Nephelometer (A), if in the field (F)
TDS	–	Gravimetric determination of total dissolved solids at 180°C (value followed by * is a determination of 105°C)
SUM	–	Total dissolved solids by summation of analyzed constituents minus 40 percent of carbonate weight
TH	–	Total Hardness
NCH	–	Noncarbonate hardness – any excess of total hardness over total alkalinity Adjusted sodium absorption ratio
SAR	–	Sodium Absorption ratio
ASAR	–	Adjusted sodium adsorption ratio
REM	–	Remarks; code letter are:

T – Total dissolved solids and the calculated sum of constituents are not within 20 percent of each other.

S – The anion sum and cation sum for a complete analysis is not within the prescribed tolerance of ± 5 percent.

X – The field EC and the lab EC are not within 20 percent of each other.

TABLE E

MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB		TEMP	FIELD LABORATORY PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE: CA	MG	NA	K	CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER: B	F	TURB	SIO2	TOS SUM	TH NCH	SAR ASAR	REM
	F	NORTH COAST HB																			
	F-03	SMITH RIVER HU																			
	F-03.A	LOWER SMITH RIVER HA																			
	F-03.A1	SMITH RIVER PLAIN HSA																			
	16N/01W-02D03 M																				
13/10/84	5050		58.0F	7.0	277	19	12	14	.5	109	1.0	11	1.7	.0	--	167	97	0.7		
1430	5050		14.4C	8.1	242	.95	.99	.70	.01	2.18	.02	.31	.03		--	127	0	1.1	T	
						36	37	26	0	86	1	12	1							
09/17/85	5050		58 F	7.0	262	--	--	--	--	--	--	--	--	--	--						
0810	0000		14 C												--						
																					S
	15N/01W-20H01 M																				
10/10/84	5050		57.0F	6.8	192	--	--	--	--	--	--	--	--	--	--						
1340	0000		13.9C												--						
																					S
09/17/85	5050		58.0F	6.3	190	5.0	12	13	--	50	--	13	3.8	--	--		62	0.7		
0750	5050		14.4C	8.2	192	.25	.99	.57		1.00		.91	.14		--		12	0.7		
						14	55	31													S
	16N/02W-13E01 M																				
10/10/84	5050		57.0F	8.8	330	--	--	--	--	--	--	--	--	--	--						
1400	0000		15.0C												--						
09/17/85	5050		60 F	6.2	322	--	--	--	--	--	--	--	--	--	--						
0735	0000		16 C												--						
	17N/01W-14C02 M																				
09/17/85	5050		59.0F	7.0	210	4.0	21	6.0	--	91	--	9.0	3.8	--	--		95	0.3		
0840	5050		15.0C	8.4	209	.20	1.73	.26		1.82		.25	.06		--		6	0.4		
						9	79	12													S
	18N/01W-34M02 M																				
09/17/85	5050		58 F	7.0	395	--	--	--	--	--	--	--	--	--	--						
0920	0000		14 C												--						
																					S
	F-05	KLAMATH RIVER HU																			
	F-05.D	SCOTT RIVER HA																			
	F-05.02	SCOTT VALLEY HSA																			
	42N/09W-27K01 M																				
07/08/85	5050		65.0F	6.4	61	7.0	2.0	3.0	.4	27	1.0	1.0	.2	.0	--	42	26	0.3	E	
1350	5050		18.3C	8.3	58	.35	.16	.13	.01	.54	.02	.03	.00		--	31	0	0.1	T	
						54	25	20	2	92	3	5	0							
	42N/09W-29A02 M																				
07/08/85	5050		62.0F	7.1	167	--	--	--	--	--	--	--	--	--	--						
1330	0300		16.7C												--						
																					S
	43N/09W-02B01 M																				
07/08/85	5050		64.0F	7.1	540	--	--	--	--	--	--	--	--	--	--						
1125	0000		17.8C												--						
																					S
	43N/09W-03H01 M																				
07/08/85	5050		60.0F	6.7	310	25	8.3	11	.9	99	10	2.0	.8	.0	--	144	96	0.5	C	
1255	5050		15.5C	8.0	250	1.25	.65	.48	.02	1.98	.21	.06	.00		--	118	0	0.7		
						52	27	20	1	88	9	3	0							S
	43N/09W-29G02 M																				
07/08/85	5050		64.0F	6.3	68	--	--	--	--	--	--	--	--	--	--						
1200	0000		17.8C												--						
																					S
	43N/10W-11E01 M																				
07/08/85	5050		59.0F	6.6	92	--	--	--	--	--	--	--	--	--	--						
1225	0300		15.0C												--						
																					S
	44N/09W-34R01 M																				
07/08/85	5050		73.0F	6.9	320	39	14	6.0	--	134	--	2.0	15.0	--	--		155	0.2		
1140	5050		22.8C	8.3	305	1.95	1.15	.26		2.68		.06	.24		--		21	0.4		
						58	34	8													S
	F-05.E	SHASTA VALLEY HA																			
	42N/05W-20F01 M																				
07/08/85	5050		69.0F	6.8	740	--	--	--	--	--	--	--	--	--	--						
0950	0000		20.0C												--						
																					S
	42N/05W-20J01 M																				
07/09/85	5050		61.0F	7.1	285	--	--	--	--	--	--	--	--	--	--						
1125	0300		16.1C												--						
																					S
	42N/06W-10J01 M																				
07/09/85	5050		61.0F	7.3	545	--	--	--	--	--	--	--	--	--	--						
1100	0300		16.1C												--						
																					S
	43N/05W-02C01 M																				
07/09/85	5050		54.0F	6.8	235	--	--	--	--	--	--	--	--	--	--						
1300	0000		12.2C												--						
																					S

TABLE E (CONTINUED)

MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB		TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	MILLIGRAMS PER LITER CACO3	SO4	CL	NO3	B	F	MILLIGRAMS PER LITER SIO2	TDS	TH	SAR	RES
	F	NORTH COAST HB																		
	F-05	KLAMATH RIVER HU																		
	F-05.E	SHASTA VALLEY HA																		
	43N/06W-21R01 M																			
07/09/85	5030		59.0F	7.3	483	26	21	--	--	--	--	2.0	--	--	--			132		S
1035	5030		15.0C		556	1.30	1.73					.06			--					
	44N/05W-32C02 M																			
07/09/85	5030		61.0F	7.3	1414	--	--	--	--	--	--	--	--	--	--					S
1315	0000		16.1C												--					
	44N/05W-34H01 M																			
07/09/85	5030		64.0F	7.4	643	--	--	--	--	--	--	--	--	--	--					S
1245	0000		17.8C												--					
	45N/05W-06E01 M																			
07/08/85	5030			8.1	970	9.0	7.0	220	1.8	486	4.0	29	.0	7.7	--	595	52	13.3		
0855	5030			8.5	956	.45	.58	9.57	.05	9.71	.08	.82	.00		--	570	0	24.3		
						4	5	98	0	92	1	8	0							
	45N/06W-12G01 M																			
07/09/85	5030		60.0F	7.7	475	48	20	26	.6	194	21	12	17.0	.1	--	286	197	3.8		
0925	5030		15.5C	8.2	455	2.30	1.64	1.13	.02	3.88	.44	.34	.27		--	239	3	1.7		
						45	32	22	0	79	9	7	5							
	45N/06W-19E01 M																			
07/09/85	5030		69.0F	7.5	345	--	--	--	--	--	--	--	--	--	--					S
0755	0000		20.5C												--					
	45N/06W-22A01 M																			
07/09/85	5030		60.0F	8.3	495	--	--	--	--	--	--	--	--	--	--					S
0835	0000		15.5C												--					
	45N/06W-27D02 M																			
07/09/85	5030		38.0F	7.5	710	--	--	--	--	--	--	--	--	--	--					S
0815	0000		14.4C												--					
	45N/06W-30E01 M																			
07/09/85	5030		60.0F	7.4	340	--	--	--	--	--	--	--	--	--	--					S
0740	0000		15.5C												--					
	F-03.M	BUTTE VALLEY MA																		
	F-05.M1	MACDOEL-DORRIS HSA																		
	45N/01E-09C02 M																			
07/10/85	5030		58 F	7.6	190	--	--	--	--	--	--	--	--	--	--					S
1340	0000		14 C												--					
	47N/01E-07C01 M																			
07/10/85	5030		75.0F	8.1	460	7.0	5.0	82	--	176	--	24	--	.2	--		38	5.8		
1345	5030		23.9C	8.5	435	.35	.41	3.57		3.32		.68			--		0	7.7		
						8	9	82												S
	47N/01E-08D02 M																			
07/10/85	5030		59.0F	7.7	800	--	--	--	--	--	--	--	--	--	--					S
1240	0000		15.0C												--					
	47N/01E-20D01 M																			
08/30/85	5030		59.0F	8.0	400	--	--	--	--	--	--	--	--	--	--					S
1200	0000		15.0C												--					
	47N/01E-32A01 M																			
07/10/85	5030		71.3F	7.9	225	--	--	--	--	--	--	--	--	--	--					S
1320	0000		21.9C												--					
	43N/01W-33D01 M																			
07/11/85	5030		59.0F	7.0	120	--	--	--	--	--	--	--	--	--	--					S
1010	0000		15.0C												--					
	43N/02W-01P01 M																			
08/29/85	5030		50.0F	6.6	200	--	--	--	--	--	--	--	--	--	--					S
1300	0000		10.0C												--					
	48N/01W-06P01 M																			
08/29/85	5030		56.0F	7.5	600	--	--	--	--	--	--	--	--	--	--					S
1400	0000		13.3C												--					
	48N/01W-17L01 M																			
07/10/85	5030		62.0F	7.6	465	--	--	--	--	--	--	--	--	--	--					S
1515	0000		16.7C												--					
	48N/01W-29F01 M																			
08/29/85	5030		50.0F	7.8	320	--	--	--	--	--	--	--	--	--	--					S
1320	0000		10.0C												--					

MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB		TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER B	F	TDS	TH	SAR	REM
						CA	MG	NA	K	CACO3	SO4	CL	NO3	TURB	SIO2		SUM	NCH	ASAR	
	F	NORTH COAST HB																		
	F-05	KLAMATH RIVER HU																		
	F-05.M	BUTTE VALLEY HA																		
	F-05.41	MACDOEL-DORRIS HSA																		
	46N/01W-30D01 M																			
05/29/85	5050		53.0F	7.3	420	--	--	--	--	--	--	--	--	--	--					
1340	0000		11.7C												--					
																				S
	46N/02W-13P01 M																			
07/11/85	5050		51.0F	7.1	520	--	--	--	--	--	--	--	--	--	--					
0810	0000		10.5C												--					
																				S
	46N/02W-25R02 M																			
05/29/85	5050		55.0F	7.1	390	--	--	--	--	--	--	--	--	--	--					
1470	0000		12.8C												--					
																				S
	46N/02W-26P01 M																			
07/11/85	5050		54.0F	7.9	185	--	--	--	--	--	--	--	--	--	--					
0945	0000		12.2C												--					
																				S
	46N/02W-34B01 M																			
05/30/85	5050		55.0F	8.0	150	--	--	--	--	--	--	--	--	--	--					
1400	0000		12.8C												--					
																				S
	46N/02W-36K01 M																			
07/11/85	5050		53.5F	6.9	480	34	34	13	--	107	--	11	48.0	--	--		225	0.4		
0940	5050		11.9C	6.4	485	1.70	2.80	.57		2.14		.31	.77		--		118	0.7		
						34	55	11												S
	47N/01W-23D02 M																			
07/10/85	5050		71.0F	7.3	735	--	--	--	--	--	--	--	--	--	--					
1020	0000		21.6C												--					
																				S
	47N/02W-21B01 M																			
07/10/85	5050		62.0F	8.3	199	3.0	2.0	28	13	84	2.0	2.0	6.2	.1	--	130	16	3.0		
0930	5050		16.7C	7.8	187	.15	.16	1.22	.33	1.88	.04	.05	.10		--	107	0	2.1		
						8	9	66	18	89	2	3	5							
	47N/02W-21M03 M																			
07/10/85	5050		57.0F	7.1	110	--	--	--	--	--	--	--	--	--	--					
0925	0000		13.9C												--					
																				S
	48N/01W-28C02 M																			
05/30/85	5050		68.0F	8.1	290	--	--	--	--	--	--	--	--	--	--					
1300	0000		20.0C												--					
																				S
	48N/01W-28F01 M																			
08/30/85	5050		78.0F	8.6		2.0	1.0	43	1.7	99	3.0	5.0	.0	.2	--	128	9	6.2		
1310	5050		25.5C	8.5	202	.10	.08	1.87	.04	1.98	.06	.14	.00		--	115	0	3.1		
						5	4	89	2	91	3	6	0							
	48N/01W-28J01 M																			
07/11/85	5050		65.5F	7.9	400	22	16	--	--	--	--	3.0	--	--	--		121			
0915	5050		18.6C		373	1.10	1.32					.08			--					
																				S
	48N/01W-28J03 M																			
07/10/85	5050		80.0F	7.4	830	59	38	69	11	364	72	5.0	17.0	.1	--	507	304	1.7		
0800	5050		15.5C	9.0	785	2.94	3.13	3.00	.28	7.27	1.50	.14	.27		--	489	0	4.3		
						31	33	32	3	79	16	2	3							
	48N/01W-31M01 M																			
07/10/85	5050		63.0F	8.9	510	36	26	16	--	96	--	23	112	--	--		197	0.5		
0840	5050		17.2C	8.2	499	1.80	2.14	.70		1.92		.65	1.81		--		101	0.9		
						39	46	15												S
	48N/01W-36A01 M																			
07/10/85	5050		79.0F	8.3	335	6.0	2.0	63	15	154	2.0	8.0	4.9	.2	.7	213	23	5.7		
1100	0000		26.1C	9.3	330	.30	.16	2.74	.38	3.06	.04	.23	.08		--	193	0	6.1		
						8	4	77	11	90	1	7	2							
	F-06	TRINITY RIVER HU																		
	F-06.3	SOUTH FORK TRINITY RIVER HA																		
	F-06.85	HAYFORK VALLEY HSA																		
	31N/12W-12L01 M																			
07/03/85	5050		61.0F	6.8	235	--	--	--	--	--	--	--	--	--	--					
1140	0000		16.1C												--					
																				S
	F-09	MAD RIVER HU																		
	F-09.4	BLUE LAKE HA																		
	06N/01E-08H01 M																			
10/11/84	5050		55.0F	6.8	180	--	--	--	--	--	--	--	--	--	--					
0910	0000		12.8C												--					
																				S
08/28/85	5050		56.0F	6.3	180	--	--	--	--	--	--	--	--	--	--					
0730	0000		13.3C												--					
																				S
	F-10	EUREKA PLAIN HU																		
	05N/01E-18D03 M																			
10/11/84	5050		62.0F	7.4	775	--	--	--	--	--	--	--	--	--	--					
1350	0000		16.7C												--					
																				S
08/28/85	5050		61.0F	7.4	800	--	--	--	--	--	--	--	--	--	--					
1000	0000		16.1C												--					
																				S

TABLE E (CONTINUED)

MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER CA	MG	NA	K	MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CACO3	SO4	CL	NO3	MILLIGRAMS PER LITER B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	RES
	F F-10		NORTH COAST HB EUREKA PLAIN HU															
	05N/01E-20Q01 H																	
10/11/84 1030	5050 0000	55.0F 12.8C	7.1	300	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 1030	5050 0000	55.0F 12.8C	6.9	300	--	--	--	--	--	--	--	--	--	--	--	--		$
	06N/01E-07M01 H																	
10/11/84 0930	5050 0000	62.0F 16.7C	6.8	478	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 0750	5050 5050	60.0F 15.5C	6.8	480 442	90 2.00	26 2.14	--	--	--	--	24 .68	--	--	--	--	--	207	$
	06N/01E-17Q01 H																	
08/28/85 0810	5050 0000	55.0F 12.8C	6.4	420	--	--	--	--	--	--	--	--	--	--	--	--		$
	06N/01E-18M02 H																	
08/28/85 0830	5050 0000	56.0F 13.3C	6.9	740	--	--	--	--	--	--	--	--	--	--	--	--		$
	06N/01E-19Q01 H																	
10/11/84 1000	5050 0000	55.0F 12.8C	7.4	395	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 0845	5050 0000	55.0F 12.8C	7.3	390	--	--	--	--	--	--	--	--	--	--	--	--		$
	06N/01E-30N01 H																	
10/11/84 1010	5050 0000	58.0F 14.4C	7.3	390	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 0905	5050 0000	57.0F 13.9C	7.3	400	--	--	--	--	--	--	--	--	--	--	--	--		$
	04N/01W-08P01 H																	
10/11/84 1250	5050 0000	65.0F 18.3C	7.7	160	--	--	--	--	--	--	--	--	--	--	--	--		$
	04N/01W-16N01 H																	
10/11/84 1210	5050 0000	59.0F 15.0C	7.5	435	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 1240	5050 0000	59.0F 15.0C	7.6	430	--	--	--	--	--	--	--	--	--	--	--	--		$
	04N/01W-17B01 H																	
10/11/84 1300	5050 0000	54.0F 12.2C	7.3	155	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 1225	5050 0000	53.0F 11.7C	7.3	155	--	--	--	--	--	--	--	--	--	--	--	--		$
	05N/01W-29K01 H																	
10/11/84 1120	5050 0000	55.0F 12.8C	7.1	263	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 1105	5050 0000	50.0F 10.0C	6.9	315	--	--	--	--	--	--	--	--	--	--	--	--		$
	06N/01W-36C01 H																	
10/11/84 1020	5050 0000	57.0F 13.9C	7.2	440	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 0920	5050 0000	56.0F 13.3C	7.2	440	--	--	--	--	--	--	--	--	--	--	--	--		$
	F-11 F-11.4 F-11.41		EEL RIVER HU LOWER EEL RIVER HA FERNDALE HSA															
	02N/01W-02L01 H																	
10/11/84 1440	5050 0000	61.0F 16.1C	6.8	535	--	--	--	--	--	--	--	--	--	--	--	--		$
08/28/85 1800	5050 0000	56.0F 13.3C	6.8	570	--	--	--	--	--	--	--	--	--	--	--	--		$

TABLE E (CONTINUED)

MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB		TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE CA	MG	NA	K	MILLIGRAMS PER LITER CACO3	SO4	CL	NO3	B	F	MILLIGRAMS PER LITER SIO2	TDS SUM	TH NCH	SAR ASAR	REM
	F	NORTH COAST HU																		
	F-11	EEL RIVER HU																		
	F-11.A	LOWER EEL RIVER HA																		
	F-11.A1	FERNDALE HSA																		
	03N/01W-18A01 M																			
10/11/84	5050		66.0F	7.3	525	--	--	--	--	--	--	--	--	--	--					
1410	0000		18.9C																	S
05/25/85	5050		63.0F	7.5	560	33	38	21	2.6	233	33	14	.1	.0	--	286	239	0.6		
1201	5050		17.2C	8.7	511	1.65	3.13	.91	.07	4.66	.69	.39	.00		--	261	6	1.3		
						29	54	16	1	81	12	7	0							
	03N/01W-19C01 M																			
10/11/84	5050		57.0F	7.1	550	25	35	39	--	219	--	30	--	--	--		207	1.2		
1420	5050		13.9C	8.3	536	1.25	2.88	1.70		4.38		.85			--		0	2.5		
						21	49	29												S
08/28/85	5050		58.0F	7.0	580	--	--	--	--	--	--	--	--	--	--					
1415	0000		14.4C												--					S
	03N/01W-36G01 M																			
10/11/84	5050		58.0F	6.8	640	30	35	36	2.2	208	2.0	64	4.7	.0	--	332	219	1.1		
1500	5050		14.4C	8.1	578	1.50	2.88	1.65	.36	4.16	.04	1.80	.08		--	301	11	2.4		
						25	47	27	1	68	1	30	1							
08/28/85	5050		58.0F	6.7	700	--	--	--	--	--	--	--	--	--	--					
1615	0000		14.4C												--					S
	03N/01W-36G02S M																			
10/11/84	5050		60.0F	8.0	850	--	--	--	--	--	--	--	--	--	--					
1510	0000		15.5C												--					S
	03N/02W-32D01 M																			
10/11/84	5050		63.0F	7.3	740	--	--	--	--	--	--	--	--	--	--					
1610	0000		17.2C												--					S
08/28/85	5050		62.0F	7.2	760	--	--	--	--	--	--	--	--	--	--					
1530	0000		16.7C												--					S
	03N/02W-35M02 M																			
10/11/84	5050		55.0F	7.1	700	22	30	72	--	272	--	35	1.5	--	--		179	2.3		
1540	5050		12.8C	8.5	651	1.10	2.47	3.13		5.43		.99	.02		--		0	5.0		
						16	37	47												S
08/28/85	5050		55.0F	7.0	700	--	--	--	--	--	--	--	--	--	--					
1500	0000		12.8C												--					S
	04N/02W-35E01 M																			
10/11/84	5050		58.0F	6.8	415	12	17	37	1.0	44	7.0	87	3.9	.0	--	239	100	1.6		
1340	5050		14.4C	8.0	410	.60	1.40	1.61	.03	.88	.15	2.45	.06		--	191	56	1.9	T	
						16	38	44	1	25	4	69	2							
08/28/85	5050		53.0F	6.7	410	--	--	--	--	--	--	--	--	--	--					
1330	0000		11.7C												--					S
	F-11.C	SOUTH FORK EEL RIVER HA																		
	F-11.C3	LAYTONVILLE HSA																		
	21N/14W-30M01 M																			
07/26/85	5050		70.0F	6.7	215	--	--	--	--	--	--	--	--	--	--					
0915	0000		21.1C												--					S
	21N/15W-01L02 M																			
07/26/85	5050		66.0F	7.3	430	--	--	--	--	--	--	--	--	--	--					
1000	0000		20.0C												--					S
	21N/15W-12M02 M																			
07/26/85	5050		62.0F	5.9	90	--	--	--	--	--	--	--	--	--	--					
1040	0000		16.7C												--					S
	F-11.F	UPPER MAIN EEL RIVER HA																		
	F-11.F1	OUTLET CREEK HSA																		
	18N/13W-08L01 M																			
07/26/85	5050		63.0F	6.3	290	--	--	--	--	--	--	--	--	--	--					
0750	0000		17.2C												--					S
	18N/13W-20H04 M																			
07/26/85	5050		72.0F	7.0	295	--	--	--	--	--	--	--	--	--	--					
0730	0000		22.2C												--					S
	F-11.G	MIDDLE FORK EEL RIVER HA																		
	F-11.G2	ROUND VALLEY HSA																		
	22N/12W-36L02 M																			
07/26/85	5050		60.0F	7.3	340	--	--	--	--	--	--	--	--	--	--					
1150	0000		15.5C												--					S

TABLE E (CONTINUED)

MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB		TEMP	FIELD PH	FIELD EC	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER / MILLIEQUIVALENTS PER LITER / PERCENT REACTANCE VALUE CA	MG	NA	K	CACO3	SO4	CL	NO3	B TURB	F SIO2	TDS SUM	TH NCH	SAR ASAR	PER
	F	NORTH COAST HB																	
	F-11	EEL RIVER MU																	
	F-11.6	MIDDLE FORK EEL RIVER MA																	
	F-11.62	ROUND VALLEY MSA																	
	22N/13W-01J03 M																		
07/26/85	5050		69.0F	7.4	230	--	--	--	--	--	--	--	--	--	--				
1245	0000		20.5C												--				
																			S
	23N/12W-33L03 M																		
07/26/85	5050		71.0F	7.2	660	65	30	--	.7	--	--	3.0	.0	.1	--		286		
1215	0000		21.6C		605	3.24	2.47		.02			.08	.00		--				
																			S
	23N/13W-13A01 M																		
07/26/85	5050		65.0F	6.9	190	--	--	--	--	--	--	--	--	--	--				
1110	0000		18.3C												--				
																			S
	23N/13W-25P01 M																		
07/26/85	5050		71.0F	7.3	245	--	--	--	--	--	--	--	--	--	--				
1135	0000		21.6C												--				
																			S
	23N/13W-36F03 M																		
07/26/85	5050		71.0F	6.8	285	--	--	--	--	--	--	--	--	--	--				
1120	0000		21.6C												--				
																			S
	23N/13W-36R33 M																		
07/26/85	5050		71.0F	6.8	285	--	--	--	--	--	--	--	--	--	--				
1120	0000		21.6C												--				
																			S

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ADDITIONAL INFORMATION

Inquiries regarding specific stations or local data should be directed to the Department of Water Resources offices shown below:

County	District Office
Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity	Northern District P. O. Box 607 2440 Main Street Red Bluff, CA 96080 (916) 527-6530
Alameda, Alpine, Amador, Calaveras, Contra Costa, El Dorado, Marin, Mendocino, Mono (North), Napa, Nevada, Placer, Sacramento, San Francisco, San Joaquin, San Mateo, Santa Clara, Sierra, Solano, Sonoma, Sutter, Tuolumne, Yolo, and Yuba	Central District 3521 "S" Street Sacramento, CA 95816-7017 (916) 445-6831
Fresno, Kern (valley), Kings, Madera, Mariposa, Merced, Monterey, San Benito, Santa Cruz, Stanislaus, and Tulare	San Joaquin District 3374 East Shields Avenue Fresno, CA 93726-6990 (209) 445-5443
Imperial, Inyo, Kern (desert), Los Angeles, Orange, Riverside, Mono (South), San Bernardino, San Diego, San Luis Obispo, Santa Barbara, and Ventura	Southern District P. O. Box 6598 849 South Broadway, Suite 500 Los Angeles, CA 90055-1598 (213) 620-4107

Inquiries regarding statewide data should be directed to the Division of Planning:

Department of Water Resources
Division of Planning
Statewide Data Coordinator
P. O. Box 942836
Sacramento, CA 94236-0001
(916) 445-7314

State of California—Resources Agency
Department of Water Resources
P.O. Box 942836
Sacramento CA 94236-0001